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ORIGINAL ARTICLES.

MATERNAL IMPRESSIONS.¹

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SINCE the time when the cunning and unscrupulous Jacob placed "pilled" rods in the streams where Laban's cattle came to drink, thereby multiplying the "ring-streaked, spotted, and speckled," which by previous agreement were to constitute his wages, the probable influence of maternal impressions on the unborn has been the subject of much speculation. Apparently in the time of Jacob such a probability was not open to doubt, as his historian made no attempt to attribute the success of the stratagem to other than natural causes, and that, too, at a period when most explanations were essayed from supernatural premises. Within the present century, however, scholarly efforts have been made to prove that the immaterial mind could not possibly "mark" or malform the material body. But instances multiply so rapidly that they have become embarrassing to those attempting to attribute them to the possibility of coincidence.

Those who believe that maternal emotions may influence the physical or mental development of the fetus have, in a measure, been silenced by the doubts of the skeptical and by the difficulty of giving a reason, which, together with the maternal instinct that prompts the concealment of congenital blemishes of offspring, have made the number of children having such defects appear much smaller than it really is.

I have no doubt that every observing medical man of ten years' obstetric experience can cite from one to ten or more instances in which the defects in a child corresponded in location and appearance to that which caused the impression upon the mind of the mother; while among the laity the number uncovered by inquiry is almost incredible.

At present, the proposition that maternal impressions may deform the child *in utero* must be proved empirically, by authentically recorded instances too certain and numerous to be explained by mere coincidence, reinforced by the opinions of physicians whose experience and professional standing are beyond question. With this in mind, I sent

personally to a few physicians, whose deliberate opinions on any subject cannot be lightly regarded, the following questions:

1. Do pronounced impressions made upon the mind of a pregnant woman predispose to bodily defects and birthmarks in the child?

2. Do such impressions influence the mental development of the child?

3. If, in your opinion, bodily or mental defects are thus produced, which of the emotions most frequently cause these defects?

With the permission of the writers, I quote a few of the replies, not failing to record a single opinion expressing doubt, or denying the probability.

R. A. F. Penrose, M.D., LL.D., Philadelphia:

"1. Undoubtedly. Their influence is very great. Illustrative cases of everyday experience.

"2. I am confident they do.

"3. The emotions of fright, dread, disgust, indeed all the depressing emotions. On the other hand, I am equally sure that the mother's bodily and nervous condition may have the most happy influence on the fetus for good, both physically and mentally."

William Goodell, M.D., LL.D., Philadelphia:

"1. I believe that they do.

"2. I feel very sure that they do.

"3. Unquestionably the emotion of fear."

Louis Starr, M.D., Philadelphia:

"1. Yes.

"2. Yes, but not so frequently as physical development.

"3. Fear and shocking or disgusting sights, as of deformities, etc."

M. P. Hatfield, M.D., Chicago:

"1. I emphatically believe they do not.

"2. Possibly."

3. He gives as causes of these defects and marks: "Prolonged mental strain, especially when conjoined with the lack of proper food."

Matthew D. Mann, M.D., Buffalo:

"1. I think they do; I am sure I have met with instances.

"2. Have never seen anything to make me think that this is the case."

Barton Cooke Hirst, M.D., Philadelphia:

"1. I believe they do, but rarely. I have seen a child with a triangular piece out of one ear, whose mother had her ear violently tweaked in the second month of pregnancy by her husband, in a fit of

¹ Read before the Twenty-fourth Annual Convention of the Colorado State Medical Society, Denver, June, 1894.

passion. How can such a case be otherwise explained?

"2. Indisputably they do. Barnaby Rudge has many a prototype in actual life. I know personally of several cases of idiocy and perverted instincts due to maternal impressions.

"3. I cannot say. Fright and violent anger, I should think."

P. R. Thombs, M.D., Pueblo, Col.:

"1. Yes.

"2. Yes.

"3. The emotion of fear."

A. T. King, M.D., Pueblo, Col.:

"1. Yes. I have a record of three instances where such impressions did interfere with the normal development of the child.

"2. I do not know, as it is quite difficult to follow a child from birth to an age when such mental conditions could be observed.

"3. Fear."

Jesse Hawes, M.D., Greeley, Col.:

"1. Doubtful.

"2. Doubtful.

"3. A few facts seem to show pronounced impressions made upon the minds of pregnant women predispose to bodily defects and 'birthmarks' in the child. Many facts seem to teach a contrary belief. Question still *sub judice*, in my belief."

W. A. Edwards, M.D., San Diego, Cal.:

"1. Possibly.

"2. It seems probable that such effect is produced."

E. Fletcher Ingals, M.D., Chicago:

"1. I have never been able to discover any relation between mental impressions and 'birthmarks,' but mental or physical depression may check development, and thus cause defects in the offspring.

"2. I think not, excepting as stated above. The parents, one or both, laboring under cerebral, functional, or organic disease at the time of conception, may, I think, influence mental development."

Frank P. Norbury, M.D., Illinois:

"1. I have reason to believe they do.

"2. It is certainly a fact that mental development is predisposed or predetermined by the hereditary factor, which I believe may be influenced by pronounced impressions upon the mind of a pregnant woman.

"3. It is difficult to say, from lack of extended investigation, but I believe fright or sudden grief will, in an impressionable person, be most marked. . . . The mental habit or mental characteristic will largely determine this point."

F. E. Waxham, M.D., Denver:

" . . . Personally I have never seen the defects that are so frequently attributed to mental

impressions during pregnancy. As there is no nervous connection between the mother and fetus, I cannot understand why a mental impression can affect any particular portion of the anatomy of the fetus.

"I can readily understand, however, that severe mental agitation or mental shock, as from fright, anger, or sudden grief, by influencing the circulation, which may not be re-established, in a certain part of the fetus, may thus influence its development."

" . . . This, to my mind, is the only reasonable explanation of these deformities. In the majority of cases I believe that mental impressions and bodily defects are simply coincidences. I have known of many cases in which mothers have been shocked during pregnancy, and they were sure that the infant would be born deformed as the result; but never have I known their predictions to come true."

The trend of the foregoing opinions is readily seen. But one is emphatic in his disbelief, yet as a cause of these defects he gives "prolonged mental strain," a state of mind in so many cases dependent upon mental impressions. "Mental or physical depression" is also given as a cause, a condition frequently secondary to mental depression in the susceptible pregnant woman; while a third reply advances the theory that "severe mental agitation or mental shock, by influencing the circulation, may influence the development of a part."

I have tabulated a few cases of congenital defects of physical development and "marks," after the plan of Dabney. But, unlike his list, which was taken from reported cases, the following table is made up from my own limited obstetric experience, together with cases narrated to me by physicians whom I meet daily; no attempt having been made to collect such data, and no case has been entered except those occurring in the practice of the physicians reporting:

There being no tangible nervous connection between the mother and the fetus through which disturbing influences might be conveyed, in the sense that a nervous impulse is transmitted, in my opinion the most probable explanation, both for defects of development of a part and of marks and scars as well, is that of the occurrence of a local circulatory stasis, apoplexy or inflammation, at some period of the gestation, induced by deviation from the normal of the chemistry or circulation of the maternal blood. Of the microscopic development of the fetal circulation we know little; but it is not presumable that there is the circulatory perfection in the forming embryo that is known to exist in the adult.

The fetus and the newly-born bleed readily, because of the weakness of embryonic tissue, and for

No.	Physician reporting.	Cause or nature of impression.	Period of pregnancy.	Nature of defect.
1	A. T. King,	Woman saw husband emerge from a mine frightfully burned. Feared child would be marked.	7th mo.	Child born with red spots similar in location and appearance to those on the father. Gradually faded out like the blush of a burn.
2	A. T. King,	Woman frightened by black dog trying to seize her ear. Feared child would be marked.	Beginning	Same ear of child of coarse texture with fringe of black hair on pinna.
3	A. T. King,	Woman suddenly confronted by mangled husband. Felt child struggle violently, and announced its death.	7th mo. 8th mo.	Child stillborn on fifth day.
4	F. D. Green,	Woman saw hog disembowel a dog. No fear of defect in child.	Early period.	Absence of abdominal walls.
5	C. O. Rice,	Woman saw dog bite her daughter on right thigh. Insisted that her child would be similarly marked.	4th mo.	Child born at term with red scar identical in location and appearance with the wound of sister.
6	Hubert Work,	Woman frightened by rat striking her temple.	Last half.	Child born with black patch on same temple.
7	Hubert Work,	Woman much disturbed by congenital mark on face of friend's baby.	Entire period.	Child born with mark identical in location and appearance.
8	Hubert Work,	Woman much disturbed by seeing epaulets on husband, by which she knew he had enlisted in army.	First half.	Child born with cartilaginous epaulets.
9	Hubert Work,	Mother frightened in a practical joke by mass of sausage.	Late period.	Child born with skin of one side mottled like sausage.
10	Hubert Work,	Woman frightened by snake falling on shoulder, then to ground.	Late period.	Same side of child from shoulder to toes red.
11	Hubert Work,	This child matured and became pregnant. Feared her child would be similarly marked.	Entire period.	Child born with same marks as mother, but less vivid.
12	Hubert Work,	Woman had ear-ring forcibly torn from lobe of left ear. Thought ear was lacerated, but it was not. Did not fear child would be marked.	4th mo.	Child born with lobe of left ear divided from center through the edge.
13	Hubert Work,	Woman took peculiar delight in imitating walk of talipes equino-varus. Husband tried to prevent it, and impress danger of deforming child.	Last half.	Child born with double talipes equino-varus. No heredity.
14	Hubert Work,	Woman frightened by harelip man.	Early period.	Child born at term with harelip.
15	Hubert Work,	Woman suffered from conjunctivitis. Did not fear marking child.	Entire period.	Child born at term with red blush on eyelids, which gradually disappeared.
16	Hubert Work,	Woman saw enraged husband cut three toes from a chicken. Feared child would be marked.	Last half.	Child born with three stubs of fingers on one hand.
17	Hubert Work,	Woman saw child fall, cutting occiput. Avoided touching herself, believing that the part touched would be marked in child.	5th mo.	Child born at term with red patch over occiput.
18	W. W. Bulette,	A woman falling scalded both hands. No fear of mark on child.	5th mo.	Child born at term. Both hands looked identically as though scalded some weeks previously.
19	P. H. Heller,	Woman frightened by man with harelip. Feared child would be marked.	4th mo.	Child born at term with harelip.
20	P. H. Heller,	Woman saw man with "port-wine" mark on right side of face. Feared child would be marked.	Prior to 4th mo.	Child born at term with similar mark, but smaller, on right side of face.
21	Hubert Work,	Woman saw boy's face lacerated. Badly frightened; feared child would be marked.	8th mo.	Child born at term with red blushes similar to those of the injured boy.
22	Hubert Work,	Woman much impressed by seeing deformed ear of a guest. Feared child would be marked.	2d mo.	Child born at term with ear identical to that of guest.
23	Hubert Work,	Woman fell, cutting vertex. Feared child would be marked.	7th mo.	Child born at term with patch of white hair corresponding in location to injury of mother.
24	Hubert Work,	Woman frightened by seeing husband's arm and hand sprinkled with blood.	Beginning 8th mo.	Child born at term with same arm and hand mottled with red spots.

this same reason prenatal apoplexies are doubtless very common. With the immediate and remote results of such extravasations we are familiar: occlusions, with compensating collateral dilatation, local starvation, absorption, and inflammation, with its changes. The cessation, even momentary, of fetal circulation, cannot but be hurtful. The resisting power of the fetal tissue is below that of the maternal structures, which may not be impressed by the blood changes resulting from the emotional disturbance of grief or fear, or of kindred emotions, but which may be equal to causing an extravasation, or to the lighting up of an inflammation in the peritoneum of the fetus, or an inflammation of the meninges, possibly to a point where the brain is absorbed, and the

child born an encephalic; or the palatine arch may suffer, and a cleft palate result; or at a later period inflammatory processes may occur in the scalp, resulting in the growth of a patch of white hair, or develop the unsightly nevus, the fainter blush of a "strawberry" or "fern-leaf;" or, if the process begins nearer the date of birth, the stage may be that of active suppuration, of which there are so many recorded instances; and in these cases the mother may remain exempt, as in those reported cases in which children are born with smallpox, syphilis, scarlet fever, etc., the mother being unaffected.

It is a simple process to trace congenital diseases existing at birth through the different stages of

repair to recovery, and from our knowledge of the healing process in similar lesions occurring after birth, we can form an approximate opinion concerning the time of the fetal lesion.

Case No. 78, of Dabney's table, in which the child was born six weeks after his older brother had suffered a bruised thumb, having a blackened nail identical with that of the brother, and coming off on the same day with his, was clearly of inflammatory origin. Also the case reported by Dr. Goodell, with the granulating prepuce. Case No. 1, of the table in this paper, was doubtless of recent inflammatory origin, and many others can be as clearly traced.

In cases of diminutive digits, it will be noticed that the member, though dwarfed, is entire, even to the shriveled nail, presenting the appearance of a member the nutrition of which has been interfered with, either by inflammation or its sequelæ, the acute process having subsided.

Those cases which present localized blushes, so frequently seen in the newborn, but which in a few weeks or months disappear, are, probably, from previous reasoning, results of maternal mental traumatism.

That the milk of a nursing mother may be so vitiated by anger or grief as to excite vomiting, collapse, or convulsions in the child, or even cause its death, is no longer a question of doubt; and we know that the same emotions will destroy the fetus. It is not, then, unreasonable to believe that the maternal emotion able to kill the fetus or cause its immediate expulsion from the womb might accomplish the less violent result of a local vascular dilatation or an inflammation with ensuing deformity.

A noticeable feature in all reported cases is that those having a defect of development are attributed to a period of gestation when the part deformed is known to be in a formative state; while those describing skin-lesions are attributed to impressions occurring at periods only after the formation of the integument. The impression which marks the skin, doubtless, would, if received early enough, distort the body.

Observation has shown that the wife, after bearing many children to one husband, has grown to resemble him—not because of those physical changes common to age, but the physiognomy is similar. And it has also been noticed that the first-born more naturally resembles the father than the mother, particularly if pregnancy promptly follows marriage. Dr. Harvey, in the *Edinburgh Medical Journal*, has described the case of a creole woman who bore fair children to a white man, but afterward to a creole male bore other children who much resembled the white man, both in features and complexion. The influence of the first male

upon the future progeny of the female has been recognized for many hundreds of years. The subsequent offspring of the Earl's Arabian mare that escaped to the desert and mated with a quagga, and of the domestic sow that mated with a wild boar, together with the instances cited in Abdel Kader's celebrated letter on the Arabian horse, are evidences of this, while the kennel-master of to-day regards as worthless the female dog which has mated the first time with a mongrel, after which she cannot be relied upon to transmit the characteristics of herself or of the purest sire. The blending of the blood of parents through the medium of the fetus has been offered in explanation of such influence, as being more reasonable than the possible influence of the mental impression coincident with the first sexual approach. The former theory perished when the physiologist learned that the fetal blood gave up to that of the mother waste only, in exchange for oxygen and nutriment, by osmosis.

Whether or not the mental stability of the child is influenced by the state of the mother's mind before its birth, because of the time necessarily elapsing between the impressions and the evidence, is a matter more difficult to demonstrate than the question of bodily defects. Yet there is a greater unanimity of opinion among physicians within the scope of my inquiries on the former than on the latter point; a vast majority evidently believing with Esquirol, that "it is often in the mother's womb that we are to look for the true causes, not only of imbecility, but often of different kinds of mania." This case, reported by the same authority, is so typical of the many coming under the observations of those given to such inquiries, that I quote it. "A pregnant woman, otherwise healthy, who was greatly alarmed by the threats of a drunken husband, gave birth to a child that had been so much affected by the mother's agitation that up to the age of eighteen years it was subject to panic-terrors, and then became completely maniacal."

The following conclusions seem justified by the information which has been available to me on this subject:

1. That both physical and mental defects follow maternal mental impressions with such frequency as to establish the relationship of cause and effect.
2. That these conditions are the result of changes in the blood, chemic, circulatory, or both, seems probable.
3. That the probability of defects in the fetus, from mental causes, is dependent upon the "mental habit or mental characteristics" (Norbury), or susceptibility of the mother.
4. That maternal anticipation of defect in the child has in itself no influence in the absence of a strong impression.

5. That the impression need not be lasting to cause defects.

6. That personal maternal injury is no more likely to mark the child than the sight of it in another.

7. That the defect is not necessarily similar in location or appearance to the object creating the impression, but is likely to be. The apparent constancy of likeness is due to the reporting of such cases only.

If we accept this theory, strengthened as it is by the opinions and beliefs of our greatest teachers and by constantly recurring cases equally reasonable and no more mysterious than a majority of medical theories upon which we base rules of practice, it becomes a part of our duty to so instruct those who depend upon our advice at such times, to avoid contact with those physically or mentally deformed, surgical operations, the sight of acute suffering, convulsions, confinement, death-bed scenes, or attendance on the injured, whether animal or human. And the possibilities of such impressions should be urged upon our municipal authorities, that the distorted stumps of the organ-grinder might be removed from the public thoroughfares, and the disease-corroded tramp be deterred from soliciting alms from every housewife who may chance to answer his knock.

THE TREATMENT OF CHRONIC OOPHORITIS BY LOCALIZED ELECTRICITY.

BY EDWARD SANDERS, M.D.,
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(Continued from p. 429.)

About five years ago I began the use of electricity in the treatment of chronic oophoritis—at first with considerable doubt, but as time passed and positive results became manifest, with more and more confidence. Up to that time medical means had been my only reliance, and these failing, as they almost always did, except in the more recent cases, a resort to surgical interference was all that remained to be recommended. At present this latter advice is only given when electricity in proper cases has failed; for it is not claimed that it will always and invariably succeed. Due care being exercised in the selection of patients, it will cure in the large majority of cases; but experience has shown that there are certain instances in which it will fail or even do harm. Its failure to rapidly relieve symptoms I now regard an indication for operation, while their aggravation is an almost sure sign of the presence of pus. When it does succeed, and this it will do in fully 90 per cent. of all cases, the relief it gives is quickly obtained, although cure of the disease itself is not so soon brought about. Often patients declined further treatment simply because they could

not understand why they should persevere when they no longer suffered, for it is remarkable how soon pain and the other distressing symptoms of the disease vanished, even though the lesion itself showed no positive sign of improvement.

Electricity can be employed in the large majority of cases of chronic oophoritis, there being, so far as my experience goes, but three contra-indications to its use: the presence of pus, that is, pus-tubes or pelvic or ovarian abscess; the coexistence of acute pelvic inflammation; while the presence of old, unyielding, and extensive adhesions between the various pelvic parts invariably leads to failure. Loose or recent adhesions do not forbid its use. When pus exists, its presence will be shown, when otherwise not indicated, by aggravation of pain, or the occurrence of an intermittent, bearing-down pain, labor-like in character, as I have a few times observed. These latter symptoms present themselves during or shortly after the application, so that their occurrence is of diagnostic significance, and forbids the further resort to electricity. When widespread adhesions exist no harm follows, but absolutely no benefit can be expected. Outside of these three contra-indications there are absolutely no others, no matter what complication may be present in the case; in fact, the treatment directed against the oophoritis will also serve to benefit and even cure all other uterine or tubal conditions coexisting, as, for instance, subinvolution, areolar hyperplasia, chronic endometritis, catarrhal salpingitis, pachysalpingitis, and even hydrosalpinx.

The advantages of electric treatment are manifold: (1) its safety; (2) the ease and painlessness of its application; (3) its non-interference with the daily routine of patients; (4) its restoration of parts to a normal or comparatively normal condition; (5) the possibility of future gravidity; (6) non-mutilation; and (7) when failure occurs the possibility of a resort to the more radical measures of surgery.

Now, as regards safety. Up to the present I have employed electricity many hundred times in the treatment of the various diseases of the female genitalia, and only once has there been an accident, and in this instance the fault was mine. This also has been the experience of all who have employed this agent.

As we have seen, the principal and most persistent opponents of electricity in gynecology are the celiotomists, and no wonder, for it invades the field which they consider their own. They claim that the difficulties and dangers of operation are increased by its previous use; that septic processes are set up, resulting in abscess-formation and adhesions; that valuable time is lost by what they call mere tinkering, and in this way results jeopardized.

Against these claims we have their boasted steady diminution in death-rate, which certainly does not indicate increased complications. Besides it has been conclusively shown that as a matter of fact the positive galvanic pole is actually a destroyer of germs, being one of the best antiseptics we have at present. In addition the same precautions, the same perfection of technique, are at the command of the electrician as are employed by the surgeon; and slovenly electrification like slovenly surgery must pay the usual penalty attached to carelessness. Due care, proper precautions, and due obedience to indications being exercised, the employment of electricity, as shown by the general experience of electricians, is absolutely without danger. In the foregoing remarks electro-puncture is left entirely out of the question, for this method I do not employ against chronic oophoritis.

These cases being "walking cases" may be treated in the office, care being taken to keep them comparatively quiet for an hour or so after the application. This done the woman may be allowed to go about her business attending to whatever work she may have to do. This, of course, within the bounds of reason.

It has been claimed that the use of electricity prevents future gravidity; that the woman is rendered as sterile as though she had had her ovaries removed. This, in my experience, is not true, for of the cases treated no less than seven became pregnant under observation, one in fact being twice delivered of living, healthy children after a previous sterile interval of four years. One other case had borne no child for five years, another for eight years, while still another had not conceived for eleven years. This result is all the more wonderful when we remember that sterility is the rule in chronic oophoritis.

The only disadvantage of this plan of treatment is its tediousness, months intervening before a cure is obtained. But, as we have seen, this is also true, and even to a greater degree, of surgery—one, two, and even more years often being required before the patients consider themselves well, even after their ovaries and tubes have been removed. So, as compared with oophorectomy, this objection falls to the ground. Besides, although six months or more are needed to cure the lesion itself, the symptoms often disappear after a few applications; not always, however, remaining permanently absent, though when they do recur they soon again disappear after further applications.

The plan of treatment recommended is comparatively simple, and requires only the ordinary apparatus called for in scientific electro-gynecology. A good working cabinet battery, consisting of a galvanic and a faradic apparatus is essential; my

preference being for that made by the Waite & Bartlett Manufacturing Co. Connected with the galvanic battery we require a milliamperemeter and a rheostat. The galvanic cells should be sixty in number, connected up in series in such manner with a current-selector that any number of cells may be thrown into the circuit. In practice, however, it is best to employ the whole sixty cells, regulating the strength of the current by means of the rheostat; in this way the wear and tear falling upon all the cells alike, so that when our battery does give out it does so like the one-horse shay—all together. With the exercise of ordinary foresight there is no danger of shock, care being taken that all connections are properly and firmly made. The preferred rheostat is the so-called New Bailey Current Controller, latest pattern, which permits us to turn the current on or off with the utmost nicety and precision, and without fear of polarization.

The faradic apparatus should consist of four cells so arranged that one or all can be thrown into the circuit, and having a series of coils of coarse and fine wire, the latter being most useful in the relief of pain, and, therefore, the one most employed in chronic oophoritis. Above all, the Engelmann coils, as supplied with the cabinet previously recommended, are to my mind the best so far in the market. The latest faradic apparatus recently introduced by this authority would seem to be even better.

The electrodes needed are few. A pad, either of clay, as recommended by Apostoli, or, what I prefer, one made of felt covered by oil-tanned chamois, which has the advantage of being durable, cleanly, and always ready for use, may be used for external application. The internal electrodes are a clay ball, a platinum sound, and a bipolar vaginal and a bipolar intra-uterine. The clay ball had best be modified by giving it a block-tin center and a chamois leather external covering, thus making it more durable and safer; the usual carbon center being in time softened and separated from the shaft, and in this way giving rise to shock, with its incident pain and fright.

When the simple relief of pain is our first object, the faradic current, fine coil, with very fine interruptions, is to be resorted to, the electrode used being either the bipolar vaginal or the bipolar uterine, the strength of current being regulated by the patient's sensations, never using a current strong enough to produce pain. The length of the sitting should be between ten and twenty minutes. Frequently I have employed faradism by placing the clay ball in the vagina and the felt pad over the abdomen or posteriorly over the lumbar region, according to the position of the ovary, the current being thus passed directly through the diseased

vagina. As a rule, when we resort to faradism it is only in the beginning of the treatment, the single object attained being the relief of pain. Generally, however, from the very start, galvanism is the form of the agent to be preferred, for in these cases it not only relieves pain almost as well as faradism, but it has the advantage also of at once initiating the cure of the disease. Faradism simply overcomes the symptom pain; galvanism relieves suffering, while at the same time bringing about a cure. Therefore, galvanism is the agent *par excellence* for the cure of chronic oophoritis. With the patient on her back, the knees drawn up and separated, the clay ball, wrapped in absorbent cotton wet with carbolic acid-solution, is passed, without using a speculum, up into the vagina to the vault, laterally, right or left, or posteriorly, the object being to bring it as close as possible to the affected ovary. When the ovary is about in its normal position, the external pad is placed over the lower abdomen; when the ovary is prolapsed into the lateral pouch or the cul-de-sac of Douglas, over the back. Care should be taken that all scratches, scars, moles, etc., are protected by some non-conducting material or oiled silk, rubber tissue, etc., and that all bony prominences are avoided, for otherwise pain will be caused. As regards the selection of the active pole: In the beginning, when it is very important to relieve the existing pain of the disease, the positive pole had better be preferred, for although its curative qualities are not as marked as those of the negative, yet its sedative properties are far greater. Pain having been relieved a persistent use of the negative pole should be entered upon. When uterine or tubal complications are marked and severe it will be best to resort to the platinum intra-uterine electrode.

The strength of current should vary between 50 and 150 milliampères, never less, if possible, than the former strength, never greater than the latter; the strength selected varying with the duration of the disease and the object to be attained, due attention being paid to the sensitiveness of the patient, and absolute pain being always avoided. As a rule, it is best to begin with the lower intensity, persisting with it if good results follow; but otherwise, if there be no visible improvement, the intensity should be gradually increased until the highest named is reached. Old-standing cases usually require the strongest currents. The duration of the sitting varies with the milliamperage employed, three minutes with 150 and seven minutes with from 50 to 75 milliamperes. The number of séances had best be about three a week in the beginning; later on, when decided improvement has taken place, two sittings a week only will be found sufficient, and toward the latter end of treatment one a week only will be

called for. Of course, it goes without saying, that no applications are to be made just before, during, or immediately after the menstrual epoch.

The usual antiseptic precautions should be taken, cleanliness being as essential here as in surgery; while the patient should be directed to rest for an hour or so immediately after the sitting.

The average duration of treatment in my experience is about four months, though some cases do not recover in less than one year. Relapses are rare, though occasionally occurring, but again yield to the same plan of treatment.

So far I have treated 67 cases of chronic oophoritis by electricity. But of these only a minority are available in the determination of the actual worth of the method; for only 30 persisted in the treatment long enough to obtain positive results; while in 37 attendance was suspended too soon or was too irregular. Of the 30 in whom the treatment was carried on to the end, 27 were completely cured, while in only three was there absolute failure. That is, fully 90 per cent. were cured without risk to life or inconvenience of any kind whatever. Of these, five had been previously advised to have their ovaries removed by well-known New York specialists.

Only two of these cured cases were uncomplicated, the other twenty-five having various existing conditions which more or less modified and prolonged treatment. Thus, in seventeen cases there was complicating chronic endometritis, once there was uterine subinvolution, twice areolar hyperplasia was present, once adhesive uterus, once old pelvic peritonitis (giving rise to considerable matting together of parts), ten times there was prolapsus ovarii, once the ovary was adherent, three times there was pachysalpingitis, and in one other case hydrosalpinx was found. It is not claimed that the treatment in these cases always restores the ovaries to an absolutely normal condition, but this it does in the majority of cases. Even when, for instance, the ovary has remained prolapsed, or still gives to the touch indications of persistent change, all symptoms have disappeared and have remained absent as long as the patient remained under observation—often for months, and even years, after all treatment had been suspended. The average duration of treatment was about four months—in some the cure being wrought in less time, in others a longer time being consumed. Cure is obtained quickly in recent cases, old standing and widely complicated ones requiring more prolonged and persistent treatment. But, as we have seen, this is nothing as compared with operative interference, for when cure does follow in such it is usually only made apparent months and even years after the offending bodies have been removed. A noteworthy fact is here again to be emphasized—that

in no less than seven of these cured cases pregnancy occurred. This is all the more remarkable when we remember that sterility is the rule in chronic oophoritis, and it has been claimed that electricity is as sure to prevent conception as the actual removal of the ovaries. Thus one great objection to the use of electricity falls to the ground.

Of the three cases of failure, in one there was universal matting together of the pelvic parts by very old, unyielding, and dense adhesions to such a degree that some years before coming under my care removal of the ovaries had been attempted, but abandoned, by the late Dr. Hunter. Another case was one also of widespread unyielding adhesions. In both of these cases some temporary benefit was obtained at first, but the final result was failure. A third case was one in which treatment was, I believe, abandoned by me too soon, the sufferings of the patient being so great, and permanent benefit failing to follow rapidly, that operation was recommended. This was done, both tubes and ovaries being removed. One year later some improvement was noted, but the woman still suffered from as much pain as before operation, while menstruation continued regularly and accompanied by great pain during the flow.

Of the thirty-seven uncompleted cases no less than thirty were being more or less progressively benefited up to the time of abandonment of treatment. I have little doubt that some of these went on improving, as it is a remarkable fact that healthy action having once been set up by electricity continues even after the use of the agent has been stopped altogether. The same fact has been noticed after the cessation of the electric treatment of fibroids. That such is true has been proved to me by the presentation after a long interval of several patients who had previously voluntarily ceased attendance, but who remained absolutely free from symptoms referable to the ovaries during the interval, and in whom examination showed the cure to be complete. The complicating conditions in these thirty cases were eighteen times endometritis, twice areolar hyperplasia, three times adhesio ovarii, four times hydrosalpinx, once pachysalpingitis, and once uterine fibroid.

The seven cases of failure do not speak against this plan of treatment, for in not one of them was it continued long enough to determine anything, the number of sittings in none exceeding five, the rule being that only one or two séances were given.

To quote from a previous article (*The American Journal of Obstetrics*, etc., 1893, vol. xxviii): "Very few of these (cured) cases made uninterrupted recoveries; pain would for some time be absent entirely, only to recur on some indiscretion; menstruation might become perfectly regular, but occasionally the previous irregularity and dysmen-

orrhea would return temporarily. One symptom which almost invariably remained permanently absent after it had once vanished was dyspareunia. The patients' general condition also usually steadily improved. Intercurrent ailments always had a bad effect upon the symptoms, for on such occasions they almost invariably recurred, though never with their former intensity, and then only to again rapidly disappear on continuance of the treatment. The ovarian disease itself, though rapidly modified, was not so quick to disappear as the rational symptoms it produced. But almost from the beginning of treatment there was steady modification and improvement in the local lesion; sensitiveness diminished, the ovary became continually smaller and smaller until it reached its normal dimensions, and, if descended, as a rule it steadily rose up to its normal position, though there were a number of exceptions to this rule, the ovary remaining down, but otherwise becoming normal to the touch. Most of the cases were seen and examined months after the cessation of treatment, and remained well in spite of hard work and a return to their old mode of life, which was generally one of hardship."

To recapitulate: The main elements for success are (1) proper selection of patients, pus-cases, cases of acute pelvic inflammation, and those in which adhesions are old and extensive, being unsuited to this plan of treatment; (2) the use of a good-working apparatus, a well-constructed cabinet, an accurate meter, and a reliable, smooth-working rheostat, constituting the main essentials, together with the employment of the proper electrodes properly placed; (3) absolute cleanliness; (4) careful regulation of sittings as regards frequency, strength of current, duration, and seat of application; (5) rest for a short time after each sitting; (6) continuance of treatment during a period of from four months to one year; (7) indications being followed and treatment persisted in, we may expect a cure in fully 90 per cent. of all cases.

So firm is my faith in this plan of treatment that I would consider myself culpable, in the absence of pus, acute inflammation, or extensive adhesions, medical measures having failed, in recommending operation without having previously persistently employed faradism and galvanism. Electricity failing, the knife alone, and then only, is to be thought of. If this rule be followed a comparatively small percentage of the cases of salpingo-ovarian disease, pus-cases excepted, will demand operation.

126 EAST EIGHTY-SECOND STREET.

Treatment of Leukoplakia.—ROSENBERG (*Münch. med. Woch.*, No. 39, p. 771) has successfully treated by applications with a brush of a 20 per cent. solution of potassium iodid an obstinate case of leukoplakia linguæ, which had for seven years resisted varied forms of treatment.

SUPRAPUBIC CYSTOTOMY FOR CHRONIC CYSTITIS.¹

By J. S. PRICE, M.D.,
OF BEAUMONT, TEXAS.

THE older writers seemed to have known but one indication that would warrant opening the bladder above the pubes, and that was vesical calculi. Notwithstanding the time-honored law of placing an inflamed organ at rest, the bladder was denied that physiologic rest for which it so often appealed, for the reason, perhaps, that the pathognomonic click of a stone could not be elicited.

It is the purpose of this paper to point out some of the salient indications demanding the operation of suprapubic cystotomy among those cases of chronic cystitis that have proved intractable to other more conservative measures. Like its close companion, symphysiotomy, it is fast finding a place in surgical procedure, and, not unlike unhinging the pubic symphysis, it has its contra-indications.

In Chelius' *System of Surgery*, translated from the German edition published 1847, the high operation is spoken of as follows:

"Cutting for the stone by the high operation consists in opening the bladder between the upper edge of the pubic symphysis and the fold of peritoneum passing over the bladder; this operation was first performed by Franco in the year 1561, and he must be considered as the discoverer of the method, although Archagines had previously proposed it. Rousset closely describes the proceeding and points out its advantages. It found, however, but little acceptance on account of the still general opinion of the great danger of wounding the bladder, until it was first again performed in England by Probi; then brought into some repute by John Douglass, Cheselden, Prye, Thornhill, MacGill, Heister, and Moran. The lateral operation, however, soon displaced it; but Frere Comes' fortunate experience (1779) raised it again for a short time."

Dr. William T. Belfield, of Chicago, very happily remarks that cystitis, in his opinion, belongs in the same category as jaundice, dropsy, and fever—a symptom and result; a signal to search for a cause. Keyes classifies the causes of cystitis as follows:

1. Traumatism, mechanical or chemic;
2. Extension of inflammation;
3. Exacerbation of preëxisting inflammation;
4. Specific action of drugs;
5. Neurosis; to which Dr. A. Vander Veer adds
6. General or systemic infection.

In considering the first members of his classification one of the most prolific causes will be encountered in dealing with strictures of the male urethra. Here we are confronted with cystitis arising from two factors, mechanical interference from impermeable stricture, coupled with an extension of gonorrheal infection to the walls of the viscus. If seen early in its history the merest tyro in surgery

is equal to the emergency, and relief is speedily given by an external perineal urethrotomy, but unfortunately such is not always the case, as a picture from Dr. W. B. Rodgers, of Memphis, Tenn., well delineates:

"A perineum red, tense, and bulging; a scrotum almost projecting itself forward, firm, tense, infiltrated, and here and there marked by fistulous openings discharging foul-smelling pus. Careful inspection shows but the faintest outline of a perineal raphé, and that thrown to the side; palpation fails to detect scarcely more than the sides of the subpubic arch; *per rectum*, the finger locates the prostate and pubic rami for a short distance; but all else felt anteriorly is a hard, swollen mass.

"The history of the case is one of multiple stricture of years' standing; efforts at dilatation have resulted in false passages; the urethral tissues have been cicatrized to the last degree by electricity in the hands of a novice. The bladder is now filled to its capacity; the new-formed perineal abscess has produced a high temperature with occasional rigors, and an hour's careful effort, aided by anesthesia, has not succeeded in passing a guide beyond the bulb. Such is a case for external perineal urethrotomy without a guide.

"An anatomist can readily reach the healthy urethra through the normal perineum without the aid of the staff or other urethral guide, and that, too, with comparatively little danger to the patient; he has his landmarks to go by; but when these are destroyed by old fistulae, by new collections of pus, destroying the median line, and even the course of the urethra itself by inflammatory processes, blending and matting together in one conglomerate mass every muscle and plane of fascia, the scene has changed, and anatomical knowledge and skill are taxed to their utmost, as line by line the tissues are divided from without, until finally, aided by good light and the sense of touch, the urethra is found, opened, and a probe is steadily passed onward to the bladder.

"The opening of the membranous urethra by an incision through a pus-infiltrated perineum without the aid of a urethral guide has been rightly styled one of the most delicate and difficult operations in surgery."

Fortunately for the less brilliant operator, there is a nearer route to the bladder, on reaching which the proximal opening of the urethra can be entered with a soft-rubber bougie and made to locate the strictured portion from within, the steel sound indicating the distal portion of the stricture. We can safely cut down between the two and bring the soft instrument partially through, leaving it in the strictured portion until healing takes place. Dr. Hunter McGuire conceived the idea of relieving those confirmed cases of chronic cystitis arising from enlarged prostate, when catheter-life was no longer practicable, by the establishment by means of the simple operation of suprapubic cystotomy of an artificial urethra, through which we are enabled to drain the bladder and treat the chronic inflammation which always attends these cases. The most gratifying results have invariably attended his work.

The perineal operation fails to afford perfect drainage to the bladder, especially in the old, in whom the posterior wall of the bladder has become literally lower than its outlet; consequently, if an inflam-

¹ Read before the Southeast Texas Medical Association.

matory process be engrafted, we find the organ placed *hors de combat* in the matter of completely evacuating itself. Hence, bacterial and chemic changes take place in the residual urine, thus tending to perpetuate a cystitis that would yield to ordinary remedial measures in the young.

Tuberculosis of the bladder has always been an opprobrium to the science of surgery, yet it would seem from the gratifying results reported by those who are authorities on this subject, that

"In suprapubic cystotomy we open up a direct route for the more effectual treatment of the tubercular lesions, and thus not only constitute the most efficient palliative measure, but also the most effective procedure in retarding the local extension of the disease by direct, vigorous anti-tubercular treatment." (Senn.)

If malaria can be excluded, I believe, when in doubt, we are justified in opening the bladder in all cases of chronic cystitis; we are then able to discover and treat the cause under conditions most favorable to recovery. It might be urged that we could arrive at a correct diagnosis by the use of the cystoscope; but unfortunately we are not all familiar with its use, and in nine cases out of ten when its use becomes necessary to a diagnosis the result is operative procedure in the end; hence, the general physician will not go far amiss if he operate at once on all his cases of chronic inflammation of the bladder that fail to respond to the routine treatment of this malady.

In answer to a letter addressed to leading American surgeons, Dr. B. F. Hadra, of San Antonio, Texas, among others, replies as follows:

"In my opinion, cystotomy, or rather cystostomy, is the rational treatment in cases of chronic cystitis that have resisted the usual treatment by internal medication, by injection, dilatations, etc. The procedure gives an easy opportunity to find the pathological cause (if cystoscopy is not resorted to), which often is hidden. Thus small calculi, polyps, tumors, tuberculosis, etc., may be diagnosed and attended to at once; then it will allow a good drainage, the evacuation of the residual urine, a thorough washing, and the establishment of a permanent canal. In tubercular cystitis the operation has sometimes been followed by the same beneficial effect as the corresponding operation in peritoneal tuberculosis, perhaps by admitting air. In prostatic enlargement, it seems but reasonable to give the viscus another chance of thorough evacuation; I am though, of the opinion, that, as a rule, the suprapubic operation should be done, even in the female. Perineal cystotomy, as a method to procure drainage, is a total failure, simply from anatomical reasons. Cysto-vaginal fistulae are repugnant and hard to keep working. All this is overcome by a suprapubic artificial urethra, which can be borne for a lifetime without much annoyance, if properly attended to, and the operation is almost free of danger and in the grasp of the general practitioner."

Dr. William T. Belfield, of Chicago, replies as follows:

"Regarding chronic cystitis as almost invariably a secondary condition, a consequence of some antecedent

morbid condition, I do not treat the cystitis by cystotomy or in any other way. I endeavor to recognize and detect the cause that I feel sure exists. Sometimes it is impossible to remove the cause when found; carcinoma or tuberculosis, for example; in such a case an artificial incision may be a desirable palliative measure. Sometimes it is impossible to detect the cause even with the cystoscope; in such a case, an incision serves both for exploration and for drainage. But a cystotomy as a means for treating cystitis I never make, because, as already stated, there is something back of the cystitis which the surgeon should search for. He may find the cause at any portion of the urinary tract from meatus to kidney, or in the adjacent organs—uterus or broad ligaments in women, rectum in men, etc. Cystitis, in my opinion, belongs to the same category, as jaundice, dropsy, and fever—a symptom and result, a signal to search for a cause."

Dr. Hunter McGuire writes:

"I have relieved chronic cases of cystitis repeatedly by performing suprapubic cystotomy and relieving the bladder."

In one of Dr. McGuire's clinical lectures the simplicity of the operation is so well portrayed that I give it as an example of the ease with which the operation may be done. Speaking to his class of students, while lecturing on the formation of an artificial urethra in chronic cystitis from enlarged prostate, he said:

"With this small scalpel I make an incision through the skin and superficial fascia in the median line, commencing about two inches above the pubic bone, and extending down to the level of its upper border; the recti muscles are now exposed, and I separate their fibers with the handle of my knife, and the wound is deepened to the transverse fascia. This I incise, and you see the pre-vesical fat, which always lies just in front of the bladder. There are several large veins running through it, so I shove them aside without injuring them, and scratch through the friable tissue. My finger now rests upon the walls of the bladder, and I can plainly feel the fluctuation of water it contains. I place the back of my knife against the upper border of the pubis, and boldly push its point through the wall of the bladder and cut upward about half of an inch. I take a stitch through its walls and the skin at the margin of the wound, and the operation is completed. It has not taken me more than two minutes, and I have used no instrument except this little knife. The loss of blood has not exceeded a teaspoonful, as the incision has been made through tissues which contain no vessels large enough to be dignified by a name."

In conclusion I will give some notes of a case that will demonstrate the point that I have striven to establish in this paper:

T. I., colored, aged eighteen years, has no history of venereal disease; his present disease dates back to childhood, when his parents, after using all persuasive means at their command, finally thrashed the child for an enuresis over which he tried in vain to make them understand he had no control. His complaint grew worse as years passed by, compelling him to leave his work every hour or two during the day to evacuate his bladder. Strange to say, he never sought medical aid until I was called to him one night. Vesical tenesmus had become so un-

bearable that he was unable to sleep. A collection of his urine revealed almost half blood, a condition that he had more than once noticed. The symptoms simulated so closely those of stone that I was quite certain that with the ordinary silver catheter I could relieve the bladder and at the same time confirm my diagnosis. The catheter was passed, and no sooner did it reach the cavity of the bladder than a decided sensation was conducted to my fingers; while not quite sure, I believed it to be a stone with which my catheter had come in contact. The interference seemed to aggravate his condition very much, so much so that morphin had to be given to restore quiet. His father was informed that an operation was necessary, to which he readily agreed. The boy was brought to the office the following day, where I had invited several of my confrères to assist in the proposed operation. After again examining his bladder it was found to hold only about six or eight ounces of liquid, which we used to distend the viscus thoroughly. The same sensation, as if some hard substance suddenly came in contact with the sound, could by a certain movement again be elicited. It was decided to try systemic measures, which had hitherto been neglected, that we might ascertain the benefit to be derived therefrom. He was very much emaciated, and was placed on Basham's mixture of iron. I was compelled to use some form of anodyne constantly, as no improvement had taken place in the vesical tenesmus, which grew so unmanageable that relief must come from some other source, and hence his father was requested to bring him again to the office, where a suprapubic cystotomy was performed, with the kind assistance of Drs. Blewett, Perkins, and Selman. Upon opening the bladder there was an alarming gush of blood, as if a large vein had been cut. This was speedily controlled by a bichlorid solution. The bladder was very much thickened, and adherent anteriorly to the abdominal walls.

The index-finger, when passed around the walls of the bladder, received a sensation as if the entire surface was covered with papillomata. This, of course, explained all the foregoing history, the diagnosis of which my microscope and sound had failed to reveal; had they so served me in making a diagnosis, it will be understood that the treatment would have been the same—a point that I trust I have well established in this paper.

An attempt was made to scratch away some of these growths, but their extreme vascularity compelled me to desist.

It is claimed that pyoktanin, or methyl-blue, has a peculiar affinity for the nuclei of embryonal tissue, and is a great pus-destroyer; consequently, with this rationale of its action, it was used in a solution of about one dram to the quart of water, flushing the bladder through the urethra, and allowing the solution to escape through the upper opening. Pus, though at first very abundant, rapidly diminished, until finally there were no traces to be seen on irrigating. The bladder-cavity was so small that it was impracticable to close the opening, which has a constant tendency to close; hence, he has to pass his urine more frequently than usual. Though this is a

source of annoyance, the boy says that he is much more happy than formerly.

CLINICAL LECTURE.

PREMATURE MENOPAUSE; RETROVERSION; REMOVAL OF APPENDAGES; RETRO- DISPLACEMENT WITH FIXATION.

Delivered at the Jefferson College Hospital, March 13, 1894.

BY E. E. MONTGOMERY, M.D.,

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PREMATURE MENOPAUSE.

GENTLEMEN: I bring before you to-day a patient with the following history: She is twenty-seven years of age, had good health as a child, and the family history is a good one. She suffered no special diseases during childhood; puberty occurred at fourteen, the menses were regular, the intervals being five weeks, the periods lasting three days, the discharge profuse and quite painful. She has been married four years, has had no children, indeed, has never been pregnant. Menstruation continued regular after her marriage, but gradually became less, and continued for periods lasting a shorter length of time, until October last, when it ceased. When married her weight was ninety-eight pounds; at present it is one hundred and seventy. She enjoys excellent health, without pain or ache. I bring her before you to consider the history, which presents a record of having a slight physique, with menstruation regular, painful, and rather profuse. In a short time she has increased largely in weight, and associated with it is a cessation of menstruation. This is one of the cases in which it is quite probable there has been a premature menopause, and it is more than likely due to the excessive amount of adipose tissue, which has developed in this individual to such an extent as to be, to a certain degree, an indication of disease. The excessive rapidity of the deposit of adipose tissue has resulted in the arrest of the menstrual function; possibly in the change of the ovary itself, so the process of maturation of Graafian follicles has been arrested, and this is one of those cases in which undoubtedly ovulation has been discontinued, and with it the accompanying pelvic congestion which causes menstruation. These cases are not very frequent in occurrence, but occur occasionally, and it is well known that patients may have amenorrhea attendant upon a large amount of deposit of adipose tissue, particularly where this deposit has occurred rapidly and in a way to indicate, almost, disease of itself. The probability of restoration of the function in such a patient is rather doubtful. If she was very desirous of having children it might be well to put her on a course of diet which would decrease the amount of fat, giving her largely albuminous foods, cutting off starches, sugars, and fats, and giving a very limited amount of liquids. In addition it would be well for her to be placed upon the use of alteratives, such as the chlorid of gold and sodium in conjunction with tonics, as extract of *nux vomica*; the action of the bowels should be regulated. In other words, our course of treatment should be directed to increasing the quantity of blood and decreasing fat. I question whether in this

patient any plan of treatment would result in cure of the condition and increase the probability of conception.

I have received to-day a letter from a graduate of this school, asking me to send him my best prescription for amenorrhea. This is a very difficult task. I do not know of any prescription that can be designated as the best one for amenorrhea. The treatment must be dependent upon conditions present in the patient. We must examine the individual and treat the particular symptoms. As you can readily understand, the treatment in this patient would be very different from that in an individual suffering from chlorosis, in whom the absence of menstruation was due to a serious blood disorder.

RETROVERSION.

The next patient has been treated in the outpatient department since the 12th of December. She is twenty-one years of age; puberty occurred at fourteen; the menses are regular, lasting six days. Three years ago she had pain in the abdomen, which occurred before each menstrual period and continued for two days; she has been married three years and has had two children, the last born five months ago. The labors were normal, and she was in bed eight days during each puerperal convalescence. She has never had a miscarriage. At the time she applied for treatment she complained of pain in the back, a feeling of weight and tension in the lower abdomen and pelvis. She has had a hemorrhagic discharge at times, and before the class some time ago the diagnosis of subinvolution was made, and she was directed to be placed upon the use of tonics and hot-water vaginal enemata. She has been given quinin, ergotin, iron sulphate, and hot-water enemata. The uterus was retroverted and in a state of subinvolution. As I examine her to-day I find the uterus occupies its normal position, the fundus lying forward, the cervix directed backward. When she first came under our observation she had been delivered but two weeks previously, and suffered consequently from a large subinvolved uterus which fell back of its own weight.

A backward displacement of the organ necessarily interfered with its circulation, keeping up the tendency to subinvolution. The first step, consequently, in the treatment of such a case would be to replace the organ and maintain it in its replaced position. This procedure will bring about a change in the circulation. Just so long as the organ remains in the abnormal position circulation is interfered with, and we shall have her suffering from arrest of involution and increased weight of the organ. The only way to bring about proper involution of the organ is to replace it and maintain it at a higher level. The circulation is thus improved, and we may hope for an improved condition. After the delivery of the woman, as she lies on her back, the heavy uterus drops backward, or if a bandage is tightly applied, the fundus may be forced backward. If this position is maintained for a length of time, it settles further down in the pelvis, and the displacement is increased by constipation, by any intra-abdominal pressure, which necessarily is directed against the anterior surface of the fundus and drives it further down into the pelvis. The process of involution is necessarily arrested by the interference of the circulation, and, as we have already

said, the first thing to do is to replace the organ and use means to maintain it.

Ordinarily the organ is very readily replaced. This is done in one of three ways: 1. By placing the patient upon her back with the limbs flexed, and, introducing two fingers into the posterior fornix, we push up the fundus with the middle finger, while the index hooks over the front of the cervix, pushing it backward and upward. This action on the lower end of the lever tilts the other end forward until it can be grasped by the hand over the abdomen and dragged forward in the position of anteversion. 2. The patient is placed in the same position as before, the sound or one of the repositors is introduced, and the restoration of the uterus to its normal position accomplished. If a sound is used, it is curved so that it passes into the canal without producing undue pressure, and then its external end is rotated through a wide arc, and by pressure with the finger against the fundus through the posterior cul-de-sac or through the rectum, and pressure backward upon the external end of the sound, the fundus between the two is carried forward. This method of procedure, however, is one that should be rarely exercised on account of the injury that must necessarily take place to the uterine mucous membrane. 3. The third method of procedure consists in placing the woman in the genu-pectoral position, that is, upon knees and chest. In this position the intra-abdominal pressure is not only removed but to a certain degree aspiration induced, when, by introducing Sims' speculum the vagina becomes ballooned and the fundus of the organ is carried upward. We should not make the mistake, however, of supposing that the abnormal position is necessarily corrected; the fundus will be carried up and remain in its abnormal position. This can be corrected by grasping the cervix with a tenaculum or volsellum, pulling down upon it and carrying it backward and forward, when the position is at once corrected.

We now have to consider how it shall be maintained in this position. The most usual method of maintaining the uterus is by means of the pessary. Of pessaries we have a large variety. Those most frequently used are the modifications of the Hodge pessary, known as the Smith-Hodge; I like still better the Thomas and Mundé, both of which have a thickened posterior bar. The latter, probably, is the better, as the pessary is broader at its posterior surface and converges toward the anterior. It is important in using the pessary to make sure that it is well adapted to the patient for whom it is used. To determine this the parts should be carefully measured to see that the pessary is of proper length and width. The length can be determined by passing two fingers into the vagina, pressing up into the posterior fornix and measuring the point at which the arch of the pubis strikes against the finger. This gives the length of the pessary that can be readily borne. A pessary too short will permit the fundus to fall backward and subsequently bend over the pessary, forming a retroflexion which will give more discomfort than the original condition. The width that can be comfortably borne will be determined by separating the fingers in the vagina. A pessary that is too long will press uncomfortably against the posterior fornix, or will project from the vulva and give rise to distress in sitting and walking. If it presses against the lateral or posterior wall it may give rise to ulceration

and the cicatricial tissue following will be so tender that a pessary subsequently cannot be readily borne. As it is introduced the parts should be carefully examined that it does not cause undue pressure, and instruction should be given the patient how it may be removed in case it causes distress. If the parts are tender and the pessary cannot be borne, a tampon of gauze, cotton, or wool should be introduced, to hold the organ up. In this way the posterior fornix may be stretched, inflammatory exudation absorbed, and tenderness relieved, so that subsequently a properly fitting pessary may be worn. It should be kept in mind that the posterior bar of the pessary does not support the fundus of the womb; in other words, the womb does not rest on the pessary, but by a pulley-like action upon the posterior fornix of the vagina the cervix is drawn backward and upward, and consequently the other end of the lever falls forward. When a pessary is introduced the patient should be cautioned to return at the end of a week for an examination, and subsequently she should not go for longer than two months without its removal for cleansing. During the time the pessary is worn no injection of metallic salts should be used, for the reason that they may lead to a deposit upon the surface of the pessary, roughening it and rendering it a source of irritation. Even when injections are not used, the secretions of the vagina will lead to deposit of their salts upon the surface of the pessary, causing it to become roughened. This roughening irritates and abrades the mucous membrane, leads to the formation of granulations which may subsequently completely envelop the pessary. I was called to see some few years ago a woman who had worn a pessary for twenty-six years without its removal. In her case the posterior half of the pessary was completely imbedded in tissue that was probably half an inch in thickness over the posterior bar of the pessary. The appearance of this tissue and the character of the discharge associated with it led the physician to suspect it was a form of malignant disease. Examining the case, I did not care to cut through the dense tissue to remove the pessary, so I drew the pessary down on one side with a pair of bone-pliers, cut it in two, and on the opposite side in the same way, then the remaining portion was slipped out of its groove. The irritation subsided and the patient recovered. In this case the result, of course, was a cure of the displacement for which the pessary had been used, but we would not care to follow such a plan in many cases. When we find the pessary cannot be borne, a tampon may be applied. Tampons may simply consist of gauze or wool, or may be medicated with various agents. Some preparation of glycerin is most generally used for this purpose, for the reason that it has a marked affinity for the watery portion of the blood and acts practically as a hydragogue, producing a free depletion of the bloodvessels. With the glycerin we may combine various medicinal agents, such as potassium iodid, muriate of ammonia, or ichthyol, agents which have a marked alterative effect upon the mucous membrane. Of these agents probably ichthyol is the most efficient, using it in ten to fifteen per cent. solution in glycerin. It acts not only as an alterative agent, but it has a positive anodyne effect upon the pelvic tissues. In consideration of the replacement of the uterus, we may find in some cases the fundus of the organ is caught

beneath the promontory of the sacrum, where the bone is markedly curved. In such cases we are unable to accomplish the restoration. We may, however, readily effect it by catching the cervix by means of a tenaculum or volsellum, dragging down upon it, while the fundus is pushed upward with the finger, either in the rectum or posterior fornix of the vagina; then carrying the cervix upward and backward, the fundus is brought forward into its proper position. There are some cases in which the fundus of the uterus is held in a retroverted or retroflexed position by adhesions between it and the rectal wall, or the uterus may be more or less bound down in such an abnormal position. This can be overcome in one of two ways: first, opening the abdomen, tearing up adhesions and bringing the uterus forward. When this is done it is a preferable procedure to fasten the uterus by means of the introduction of sutures, performing the operation known as hysterorrhaphy or ventro-fixation. The other method is one that is less rapid in accomplishing it, and yet is one that is certainly effective, and that is by means of pelvic massage. Introducing two fingers into the vagina and with the other hand over the abdomen, bring the offending organ between the two hands, lifting it up a number of times, and stretching the ligaments as far as they will permit, then moving the uterus from side to side, in this way putting the parts through a massage which results in the absorption of any exudation or bands of adhesions, and subsequently the entire freedom of the uterus. Another method of procedure that has been suggested for maintaining a retroverted uterus in its normal position is known as the Alexander operation, which consists in making an opening upon either side over either inguinal ring, exposing and drawing out the round ligament. This method of procedure, however, is subject to a number of objections. First, in such cases the round ligament may have become so atrophied that it is useless to serve the purpose; second, where any inflammatory condition has existed in the pelvis the ligament may have been more or less bound in its groove and does not readily slip; third, it is necessary to make two wounds in a position in which it is difficult to protect them and preserve the parts from subsequent infection; fourth, any infection which takes place here may result in the failure to fix the round ligaments, and these infected structures slipping back carry infection beneath the peritoneum to a point which is difficult to reach, so that the patient necessarily suffers danger. On the other hand, by ventro-fixation we have but one wound; the uterus is more certainly brought forward in its normal position; it is applicable to a greater variety of cases, and the danger of infection is much less.

REMOVAL OF APPENDAGES.

This patient is twenty-three years of age; her father is living and healthy; the mother died from bronchitis. She was healthy as a child; puberty occurred at fourteen; menstruation is normal; she married at seventeen, and has had three children. The first labor was protracted, instruments were used, and the perineum lacerated. Her last child was born two years ago, without instruments. Four weeks later she was sick with a pelvic inflammation, and was confined to bed for three weeks. She had a second attack four

months later, which also lasted two weeks. A month before entrance to the hospital, on the 14th of February, she was confined to bed a week with a third attack; she complains of pain in the left inguinal region since the first attack of inflammation, also pain over the sacrum, and she has frontal and coronal headache. Three months after her first labor the perineum was repaired. On operation, we found the left ovary partly occupied by a small cyst. The tube was enlarged and occluded, both tube and ovary were removed. The right ovary was normal in size, but projecting from it was a hematoma which was equal in size to another ovary. The tube was similar to that of the left, and was also removed. The wound was closed with a single row of silkworm-gut sutures. Subsequent to the operation the patient had an elevation of temperature and some suppuration in the line of the wound, which rendered recovery slow. She has been suffering since the operation with some pain in her abdomen. You see the line of the cicatrix here and suppuration in the median line. One point of interest in this patient is, that following operation on the perineum she has had a great deal of discomfort in sitting down. The operation known as the Tait operation was performed, and the inconvenience has been induced by carrying the incision too far out upon the integument, so that a band of tissue was formed which is rendered tense by separation of the limbs, and in sitting down this becomes extremely painful. I propose to give relief by cutting through the band and stitching the skin edges together on either side. Such an example as this should teach you to be careful in operation not to bring your union out upon the skin-edges, as such a cicatricial band gives rise to very great discomfort. In examining this patient's pelvis I find no special trouble. The uterus is slightly flexed, there is some induration of the broad ligament on the left side; nothing, however, that indicates any suppurative condition or collection of pus. The patient has been kept perfectly quiet, her bowels regular, douches of hot water given in the vagina, and counter-irritants over the abdomen; with administration of tonics, a certain amount of rest will be sufficient to bring about her relief. This may also be very greatly expedited by the practice of uterine massage, as the manipulation of these tissues is just as effective in promoting absorption or exudation as it could be in ankylosis of the limb.

RETRO-DISPLACEMENT WITH FIXATION.

The next patient is twenty-five years of age, and both of her parents are still living. She has been suffering from some pelvic disturbance for quite a length of time. She comes to-day for the purpose of undergoing careful examination. As we introduce the finger into the vagina, we find it comes in contact about an inch-and-a-half from the vulva with the cervix, which is directed in the axis of the vagina. As we pass the finger into the posterior fornix it comes in contact with the posterior surface of the uterus, showing that the fundus of the uterus is lying in Douglas' pouch. Pressure shows that there is a certain amount of fixation in the broad ligament, more particularly on the left side. This is one of the cases in which there may be a question with regard to the treatment of the patient by means of uterine massage. The first thing is to secure, as a prerequisite, the cooperation of the patient. If the patient resists at every

effort at the correction of the displacement we shall have great difficulty in bringing about the desired result. At present the fixation is so great that we could not at once bring about replacement of the organ. Adhesions occur between the rectum and the uterus, and prevent us bringing about the relief by manipulation, which could be accomplished otherwise, and it will be necessary to subject her to uterine massage for a length of time in order to break up and absorb the adhesions and enable us to bring the organ forward.

CLINICAL MEMORANDUM.

A CASE OF GUNSHOT WOUND OF THE HEART.

SERVICE OF DR. KERR,
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[Reported by JAMES R. CHURCH, M.D., Senior Assistant
Resident Physician.]

WHILE a case of gunshot of the heart, with survival for a time after the injury received, is not unique in the annals of surgery, yet such instances are of interest as an indication of what perhaps may develop some day along this line in parallelism with the surgery of the brain.

A. W., a white man, sixty-seven years old, was brought into the receiving-ward of the Emergency Hospital at 5.40 P.M., suffering from a gunshot wound of the thorax inflicted at 4.50. Upon his admission he was in a state of collapse, the features pinched and pale, the body covered with a clammy perspiration, and the dressings over the wound stained with blood. The wound, which had been made by a pistol-bullet (32 caliber), was situated one-and-a-quarter inches below the mammary line and a little to the left of the center of the sternum, and through it considerable blood had escaped. The pulse was almost imperceptible, the respiration fair, the mind wandering. The man was put to bed, the usual therapeutic agents were employed, and transfusion was performed, but the condition became steadily worse, and death took place at 7.45.

A post-mortem examination was made, which showed that the ball had pierced the sternum just above the xiphoid cartilage, and entered the pericardium to the right and at the lower part. The sac was filled with blood, both fresh and clotted. The heart was pierced through the right ventricle, as shown in the photograph, which shows the anterior wound, one-half inch in diameter. The wound of exit was five-eighths of an inch in diameter and ragged. The diaphragm was perforated and the omentum wounded in several places.

The ball itself was lodged under the skin posteriorly between the ninth and tenth ribs.

The hemorrhage had been very fierce, the pericardium being choked with blood, the pleural cavity containing a large quantity, and the peritoneal cavity considerable.

The question which naturally presents itself in view of such cases is the possibility of some reparative measure. If a man can live for three hours with such an injury, it does not seem beyond the bounds of possibility that, with the advance of surgery, operative interference may at sometime be justifiable. The surgeon of to-day hesitates to meddle with the heart, but the views of cardiac surgery are probably no more pronounced now than

were the opinions on brain-surgery fifteen years ago, when Dante's motto of "Leave all hope behind, ye who enter here" was the common verdict of the profession in regard to any operation involving the cortex.

In the *Index-Catalogue of the Army Medical Museum* there are reported 22 cases of direct injury to the heart, all of which lived over three hours; 17 lived over three days; 8 lived over ten days; 2 lived over 25 days; 1 died on the fifty-fifth day, and there were three well-authenticated recoveries. Dr. S. S. Purple, of New York, gives in the *New York Medical Journal* (vol. xiv, pp. 411-434), an account of a recovery from a wound penetrating both ventricles (confirmation of the diagnosis by post-mortem nine years subsequently), and a tabulated list of 42 cases which survived injury for from thirty minutes to seventy days. Dr. C. E. Lavender, in the *Proceedings of the Medical Association of Alabama* (1851, pp. 104-181), reports a recovery from an incised wound of the heart, and Dr. C. L. Ford, in the *New York Medical Record* (1875, p. 173), cites a case of buckshot injury with recovery. From these statistics, and they are only a partial list of those recorded, it seems that the heart is capable of resisting traumatic interference to a certain degree and of fulfilling its function in spite of more or less injury.



X. Wound of exit.

If this be so under such unfavorable circumstances as in neglected wounds, why should not the parallel hold good in surgery, when every advantage is seized and little left to chance?

There are three main objections to surgical interference with the heart: 1. The danger of stopping the cardiac action. 2. The question as to the possibility of starting pulsation if it cease; and 3. The danger of the entrance of air into the circulation.

In the first place it remains to be seen whether the application of sutures would check the heart's action. If it would, which is not proved, the question of restarting the heart would have to be settled. As for the third objection, it has been shown experimentally that this is not so great a factor as has been supposed. Drs. Hare and De Schweinitz, of Philadelphia, have done much work along the line of experimental cardiac surgery. Whether their results have been published I do not know, but they have demonstrated that the intravenous injection of large quantities of air is not necessarily fatal.

If, then, a heart may sustain a grave injury and perform its function for so long a period as five days, or even five hours, why should not some remedial measures be possible and allowable, as the present view is that all direct wounds of the heart are necessarily fatal sooner or later, and that no hope, or practically none, lies in a policy of non-interference.

In view of the statistics quoted, it might at least be open to discussion whether a surgeon might not open the pericardium, clean out the clots, close the wound in the heart-wall, and give his patient a chance of recovery. It is no more improbable now than was the removal of a tumor from the motor area of the brain in the recent past.

THERAPEUTIC NOTE.

FORMALIN IN THE TREATMENT OF CHANCROIDS AND VENEREAL WARTS.

By H. R. GAYLORD, M.D.,

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In a paper read before the Microscopical Society, in Washington, January 9, 1894, Dr. W. W. Alleger speaks of having tried formalin in the treatment of chancroids, but gives no particulars other than that the lesions healed rapidly after one application of the full-strength solution. There were no bad results except pain, which, however, he considered more severe than necessary, and he intended using a weaker solution in the future.

I have had the opportunity of trying the drug in several cases of chancroids in the venereal wards of the Philadelphia Hospital. In four cases which were under observation sufficiently long to be certain that they did not relapse, the results were uniformly favorable.

CASE I was a male, twenty-eight years of age. He had an active, well-defined chancroid on the dorsal surface of the inner aspect of his prepuce, which was touched with formalin, full strength, on a cotton swab. One day later a thick, brown crust had formed over the sore, and on the fourth day this separated, leaving a healthy ulcer that healed rapidly under antiseptic dressings. The pain in this case was not severe, and no anesthetic was used.

CASE II was a male, forty-six years of age. He had multiple chancroids on the inner aspect of the prepuce, varying in size from a pin-point to a quarter of an inch in diameter. These were carefully touched with the full-strength solution, which produced severe pain, lasting several minutes. One week from the institution of the treatment the entire prepuce was free from chancroids, except two small areas which had been overlooked. These were then treated in a similar manner,

with the result that they, too, entirely disappeared by the end of the following week.

CASE III was a female, twenty years of age. She had a chancroid the size of a penny on the inner aspect of the left thigh, one inch from the labium. This was treated with formalin, in a 20 per cent. solution, and the application was repeated in twenty-four hours. The patient complained greatly of the pain of the first application. The second was preceded by the application of a 10 per cent. solution of cocain, with the effect of decreasing, though not entirely relieving the pain. Five days from the first treatment the chancroid had decreased in size to that of a pea, but the center was still active, and was again touched with a 10 per cent. solution. Ten days from the first treatment there was nothing left but a scar.

CASE IV was a male, twenty-four years of age. He had fifteen chancroids distributed over the penis, the scrotum, and pubic eminence. He had been in the hospital two months, had had his prepuce laid open, and two buboes were open and suppurating. This mass of infection had made but slight progress under the usual antiseptic treatment, and he was in a deplorable condition.

On September 13 the chancroids on the penis were dressed with a 10 per cent. solution of formalin, and the buboes had gauze saturated with a 1 per cent. solution laid over them.

On September 14 I dressed the buboes with a 5 per cent. solution; on the 15th and 16th, with a 5 per cent. solution; and on the 17th with a 3 per cent. solution. The pain had become so severe at this point that treatment was discontinued.

On September 20 the buboes were again dressed with a 5 per cent. solution of formalin. The pain produced by this dressing was so acute that I reduced the strength of the solution to $\frac{1}{2}$ per cent., and used this for three days more, when I found it necessary to discontinue the dressings entirely.

During this treatment the improvement of the chancroids on the penis and of one of the buboes was most marked. Two large chancroidal areas healed entirely, and the bubo mentioned formed a superficial slough, which came away, leaving a healthy granulating surface, which is now nearly healed. The extreme sensitiveness which the patient developed to the pain produced by the drug was very unusual, and was so marked toward the end that a $\frac{1}{2}$ per cent. solution could not be borne without the use of opiates.

CASE V was a male, forty-two years of age. The penis was covered with venereal warts arising from the preputial fold and glans. These were touched with formalin, full strength, and on account of the large surface covered produced intense pain.

In four days the warts were reduced to less than half their original size, and on a second application of a full-strength solution they disappeared entirely in five days more.

The results in these cases show that the best results are obtained when full-strength solutions can be used, and then one application is usually sufficient.

The pain produced by the full-strength (40 per cent.) is not markedly greater than that produced by solutions above 10 per cent. Pain, while excessive, can be deadened

by cocain, when it is probably not more severe than that caused by nitric acid. The drug should not be applied over large surfaces except in weak solution. When continued for a protracted period of time it tends to lead to an intolerance on account of the pain produced.

Formalin recommends itself for office-use when the patient is anxious for speedy relief and is willing to endure the pain. The fact that the active principle of formalin is a gas would seem to indicate its use in buboes which are open, as it acts on the deepest recesses of the wound. The formation of the crust, however, which it produces, in one case, at least, prevented drainage, and in this way delayed the result.

MEDICAL PROGRESS.

The Bacteriopathology of the Tooth-pulp.—As the outcome of a study of the pulps of 250 diseased teeth, MILLER (*Verhandl. d. deutsch. Odontolog. Gesell.*, Bd. vi, H. 1, 2; *Centralbl. f. Bakteriolog. u. Parasit.*, Bd. xvi, No. 10, 11, p. 447) formulates the following conclusions: The infectious processes of the tooth-pulp are associated, with but few exceptions, with mixed infection, cocci and bacilli being almost equally represented. Somewhat less frequently long, thin threads and spirals are found. Bacilli and threads with spores are also sometimes present, but not frequently. The microscopic examination of cover-glass preparations alone justifies the assumption that micrococci especially participate in the suppurative process. The bacteria find their way to the pulp principally through carious dentine, even a thin layer of which suffices to protect the pulp from infection. Infection of the pulp through the circulation, while conceivable, is scarcely capable of direct demonstration. The pulp is predisposed to infection by the action of the products formed in the carious dentine, such as acids and ptomaines. Forms of bacteria, particularly spirals, not capable of cultivation, play a prominent part in the production of disease of the pulp. A considerable number of cultivable bacilli have been found in connection with disease of the pulp; but, as a rule, they possess no special pathogenic activity. The typical pyogenic cocci, the staphylococcus pyogenes aureus and albus, and the streptococcus pyogenes, are but rarely found in pus in the pulp. On the other hand, a number of cocci, particularly a closely related group that induce suppuration in mice, are found. In spite of careful search the presence of the pneumonia-coccus could not be detected. The activity of the cocci found in the pulp is increased by co-existence of putrefactive processes. A putrid condition of the pulp, whether the presence of bacteria in the body be demonstrable in pure culture or not, is always a dangerous source of infection. The putrefactive processes in the tooth-pulp are to be ascribed to various forms of bacteria. The putrefactive products are not always the same. In addition to gaseous substances there occur others whose nature is deserving of further study.

Fatal Poisoning by Sewer-Air.—WEBBER (*Lancet*, No. 3708, p. 686) has reported the case of a girl four years old, who for two days had complained of sore-throat and difficulty in breathing. Immediately previous to

this the child, in common with the other children of the family, had suffered from what the parents described as mumps, during recovery from which the other symptoms appeared. The parents complained of constant bad smells, and on inspection the origin of these was found in a small court-yard in the back of the house in which the cesspit of the adjoining house was situated. This was furnished with an inspection-hole, the cover of which, a flat stone, fitted badly, and from which sewer-air escaped. It was stated that when the cesspit became very full the sewage forced its way beneath the cover into the court-yard. Several members of the family in the adjacent houses had for some time suffered from anemia and occasional sore-throat. The little patient appeared anemic and ill. On examination the tonsils, faucial interspace, and pharynx were found covered with muco-pus. The tongue was thickly coated with a creamy-white fur and a purulent discharge oozed from the anterior nares. The submaxillary glands were slightly enlarged. The temperature was 102° and the pulse 110. The local condition improved upon the administration of four minims of tincture of ferric chlorid every four hours and the application to the throat and nose of a boric-acid solution. The child, however, continued weak and anemic. In the course of a week she made complaint of pain in the abdomen, which on examination was found to be moderately full. The liver was uniformly enlarged, smooth, and slightly tender, the edge rounded and reaching downward to a level of two inches above the umbilicus; the dulness commenced above at the sixth rib, and tenderness was complained of on percussion over the lower ribs. The area of splenic dulness was not increased. The child continued in this collapsed condition and albumin appeared in the urine. Amid symptoms of profound asthenia death took place two weeks after the onset of the first symptoms. An autopsy was not permitted.

Syphilitic Cerebral Arteritis.—As a result of an anatomico-pathologic and clinical study, CHARRIER and KLIPPEL (*Revue de Médecine*, 1894, No. 9, p. 792) arrive at the conclusion that syphilitic cerebral arteritis is the most frequent of the specific arteriopathies. Anatomically the process may be an obliterative or an aneurysmal one. When the obliteration or the aneurysm involves a large artery at the base of the brain there may result apoplexy and death, by thrombosis of the basilar artery or meningeal hemorrhage. When the arteries affected are of moderate size or when the obliteration is incomplete grave and often incurable hemiplegia may result. When the morbid process is not extensive and involves the small arteries the symptoms are not alarming, although so-called syphilitic aphasia may occur. When the morbid processes is widely distributed over the arterial system there may be present both specific lesions and those of a diffuse peri-encephalitis. Clinically these lesions give rise to paralyzes of hemiplegic type analogous to those observed when the affected arteries are of moderate size, or the obliteration is incomplete, or when the alteration is less extensive and involves the smaller vessels; but the symptoms approach in character those of general paralysis. This last condition, however, must not be confounded with the pseudo-general paralysis resulting from the existence of an insular

meningitis of gummos nature. Whatever the form of lesion, the treatment should be prompt and energetic. As soon as syphilis is suspected mixed treatment should be instituted, including the use of inunctions of mercurial ointment in quantities of from 60 to 90 grains daily, the administration of potassium iodid in doses of 90 grains the first day, 130 the second, and gradually increasing until 240 or 260 grains are taken in the course of twenty hours. Tolerance is more readily established when large doses are administered then when small ones are given.

The Treatment of Rupture of the Uterus during Labor.—WASTEN (*Bolnitschnaia gaseta Botkina*, No. 24; *St. Petersburger med. Woch.*, 1894, No. 36, Supplement No. 8, p. 46) has reported the case of a nonipara in which, following the delivery of a stillborn child with the forceps, a rupture of the uterus was found. The woman was in a condition of collapse, the abdomen distended, the fundus uteri two-fingers' breadth above the umbilicus. The ligated umbilical cord protruded from the vulva. Digital examination disclosed a laceration of the anterior wall of the uterus, through which the placenta had gained entrance into the abdominal cavity. Celiotomy was at once undertaken, and some liquid blood and the placenta surrounded by clots were removed, while the ligated umbilical cord was withdrawn from the vagina. As evidences of septic infection were present, and it would have proved difficult to suture the margins of the wound in the uterus, supra-vaginal amputation of the viscus was decided upon. The stump was returned to the abdominal cavity, and a drainage-tube was passed through Douglas' cul-de-sac into the vagina. The abdominal wound was sutured. The laceration was 6.5 cm. long and extended obliquely downward and to the left upon the anterior aspect of the uterus from near the fundus.

The general condition following the operation was satisfactory, although for two weeks the temperature was elevated and remittent in character, gradually, however, subsiding to the normal. On the sixth day after the operation a malodorous vaginal discharge set in, which was found to depend upon an endocervicitis. The drainage-tube was removed on the eighth day, the sutures on the eleventh, and the wound was found healed by first intention. The patient ultimately recovered perfectly.

A Case of Akromegaly with Autopsy.—BONARDI (*Arch. Ital. di clin. Med.*, 1893, Punt. ii; *Centralblatt f. Chirurgie*, 1894, No. 34, p. 816) has reported the case of a man seventy-five years old, in whom the head, hands, and feet had from youth undergone progressive enlargement, and who stated that his father had suffered similarly. The eyelids were thickened, the nose was large and broad, the lips thick and muscular, the tongue immensely large and with difficulty protruded, the lower jaw greatly increased in size, measuring 30 cm. (11.79 in.) from one angle to the other; the circumference of the head was 61 cm. (24 in.); the larynx was also greatly enlarged; the vertebral column was markedly kyphotic. The enlargement of the right hand was greater than that of the left. That of the feet appeared to involve particularly the soft parts. There was dulness on percussion over the manubrium sterni.

Death took place as a result of cardiac asthenia. The sella turcica was found to be of normal size and the hypophysis cerebri not enlarged. The tongue was 7 cm. (2.75 in.) thick and weighed 210 grams (6.75 oz.). The thyroid gland was atrophic; the retrosternal lymphatic glands were found to be enlarged. The entire arterial system was in a high degree atheromatous.

THERAPEUTIC NOTES.

Bone-marrow in the Treatment of Leukemia.—BIGGER (*The Lancet*, No. 3708, p. 682) has reported the case of a lad, twelve years old, who came under observation at the age of six years, suffering from splenic enlargement and anemia. During a period of six years he had from time to time had courses of arsenic and iron iodid. Under this treatment the anemia had always improved, but until recently the enlargement of the spleen had not varied. Within a period of some two months the disease had manifested a more active character, and the boy was rapidly sinking into a critical condition. The spleen became much larger than before, and completely filled the left half of the abdomen, extending into the iliac fossa and across the middle line for two or three inches. Associated with this enlargement there were very rapid emaciation and marked anemia, accompanied by an icteric tinge of the surface. To these symptoms were added diarrhea, pyrexia, and frequent attacks of epistaxis. The pulse was rapid, and there were dyspnea and palpitation on the slightest movement. There was no enlargement of the lymphatic glands. In spite of full doses of arsenic and iron the anemia and wasting progressed, and the case assumed an almost hopeless aspect. The boy was now provided with a supply of bone-marrow, which he ate spread upon thin slices of bread. For the first two or three days the result did not appear to be satisfactory, as the spleen became more tender and complaint was made of acute pain over the splenic area. The pain was relieved by hot fomentations and soon passed away, and the spleen became less tender. By the end of the first week of the new treatment the patient looked and felt so much better that there was no doubt of the advisability of continuing it. At first there was some repugnance toward the raw marrow, but this soon passed off, and there was no difficulty in getting down two or three slices of bread thickly spread with marrow, three or four times a day. The improvement in the boy's condition after the first week was little short of marvellous. The anemia and jaundice disappeared, and the skin and mucous membranes acquired a healthy color. The symptoms due to the anemia at the same time passed off, and in three weeks the boy was able to walk about without shortness of breath or palpitation. The temperature also became normal. The spleen diminished in size, and at the end of two weeks the lower edge had receded to a level with the anterior spine of the ileum, and the inner edge did not extend beyond the middle line. After a month of treatment the boy was better than for a long time, and the spleen continued to diminish in size. Some ten weeks later the boy appeared perfectly well, and the spleen had become normal in size.

Bone-marrow in the Treatment of Pernicious Anemia.—DANFORTH (*Chicago Clinical Review*, vol. iv, No. 1,

p. 1) has reported a case of pernicious anemia in which recovery seemed hardly possible, but in which excellent results were brought about by the administration of bone-marrow. This substance was at first administered in capsules, and subsequently with the food, but later the following mode of preparation was pursued: The anterior extremities of calves' ribs were comminuted, so as to thoroughly expose the cancellated tissue, and the fragments were placed in a jar and covered with glycerin, to the influence of which they were exposed for three or four days, being occasionally agitated. At the end of this time the liquid was strained through flannel, and the resulting fluid presented a reddish, syrupy appearance without pronounced odor and with very little modification of the ordinary sweetish taste of the solvent. This preparation was administered in doses of a teaspoonful three times a day, together with five drops of the official solution of potassium arsenite. As in the course of a few days the sweetish, sickly taste of the glycerin extract became disagreeable, and the stomach began to rebel, the following combination was employed:

Solution of potassium arsenite	2½ drams.
Acid sodium phosphate	3 ounces.
Extract of bone-marrow	8 "

Of this a dessertspoonful was given after each meal. This combination proved entirely satisfactory, and the patient steadily gained in health, strength, and spirits, and in a short time presented every indication of restoration to former vigorous health. The hemoglobin rose from 35 to 80 per cent., and the red blood-corpuscles underwent a corresponding increase in number.

Lactophenin as an Antipyretic.—JAQUET (*Correspondenzblatt für Schweizer Aerzte*, May 1, 1894) has employed lactophenin in forty-two cases of various kinds, including pneumonia, influenza, erysipelas, typhoid fever and florid pulmonary tuberculosis. In all the drug acted as a reliable and agreeable antipyretic; in doses of from 50 to 75 cg. (7.7 to 11.5 gr.) it caused a fall of temperature, even in the case of erysipelas. In one case a dose of 1 gram induced a fall of temperature from 104.3° to 98° F., its action being continued for eight hours. A certain amount of stupor followed the administration of the drug, but this did not persist for any considerable length of time. In addition to its antipyretic action lactophenin is a sedative and hypnotic in doses of from 80 centigrams to 1 gram (12 to 15 gr.).

Idiosyncrasy to Topical Applications of Tannic Acid.—KRUGER (*Deutsche med. Woch.*, 1894, No. 18; *St. Petersburger med. Woch.*, No. 36, p. 331) has reported a case in which the employment of a 1 per cent. solution of tannic acid as a nasal douche was followed by the appearance of redness of the face, injection of the conjunctivæ, increased lachrymal and nasal secretion, redness of the fauces, of the soft palate, and of the epiglottis and entrance to the larynx. There was besides complaint of occipital headache, ringing in the ears, ocular pressure, tension of the gums, and a sense of dyspnea. The symptoms receded spontaneously in the course of two hours.

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SATURDAY, OCTOBER 27, 1894.

THE DUTY AND PRIVILEGE OF MEDICAL EXAMINING BOARDS.

DURING the past few years there has been a marked extension of the method of State examination for license to practise medicine. This must be encouraged by the commendation of every physician. But it may not be amiss to warn the examiners that they are likely to fall into a grave error. The examinations are, so far as we can learn, entirely written. This seems right and proper for the protection of the examiners and the safety of the applicant. But these written examinations are also, so far as we can learn, conducted from written questions requiring nothing of the applicant except his pen and the correct answer. The questions entail no examination of anatomic material, no physiologic examination of the living body, no chemic or microscopic examination of the excretions or secretions, and no clinical or pathologic examination of actual diseased conditions.

The effect of this Chinese-like method of examination at the writing-table alone is beginning to be felt by medical educators. The text-book system of study is increasing in medical schools. Cramming is becoming as virulent a malady in them as it was in our literary colleges when the sciences were first made an obligatory part of their courses. As we look

over the field of medical education we cannot help admitting the evident benefit which examining boards have conferred in whipping the poorer schools into line. But they have a duty also in encouraging the better schools. Now they measure and record the low-water mark of medical education. It would be equally salutary if they would measure and reward superiority.

In a recent conversation with a prominent examiner upon the method of these examinations, he seemed to appreciate the desirability of examination by means of actual physical and chemic diagnosis with all the appliances of the consulting-room, but he feared the expense. This expense ought not to be considerable. If a hundred students were to be examined, ten small rooms could be provided in addition to the writing-room. In the first, a healthy man should be placed with the necessary appliances for examination as for life-insurance. A blank should be at hand leading to the required examination, and the first applicant should be allowed such time as this examination ought reasonably to consume. The examination finished and the report written, the applicant should pass to the second room and write the result of his examination of such clinical case as he finds there. This case and other cases should be selected from the hospital or dispensary. They would be willing to submit to these examinations for the fee which every State can well afford to pay. Some care must of course be used in the selection of these cases, but no more than ought to be used in selecting the questions presented. In each clinical examination-room should be at hand the material and apparatus for the examination and a suitable blank to be filled out, with the result of the examination, the diagnosis, the prognosis, and the indications for treatment. It is evident that all kinds of medical and surgical cases are not adapted to the purposes of this examination; and it is equally obvious that the patient must be protected by an attendant from any careless, rough, or dangerous methods of examination at the hands of the student. We regret to say that lately, presumably through conscious or unconscious imitation of our German neighbors in their clinics, many students in American medical colleges have seen rough and almost inhuman, certainly unchristian and undemocratic treatment of hospital and dispensary patients at the hands of their teachers.

In the second, third, fourth, fifth, and sixth rooms also, the applicant would perhaps find in succession

heart-disease, tuberculous pneumonia, dilatation of the stomach, and lead-poisoning. In the seventh room he would find a basin containing a pathologic lung on which a written description and diagnosis with illustrative drawings would be required. In the eighth, ninth, and tenth rooms other means of testing the ability of the applicant to diagnose, say, carcinoma, from the mounted specimen, and again two or more forms of nephritis from the urine and the accompanying written histories. The reader will at once see what an impetus to correct medical education such an examination would surely give. It would rebuke, through the failure of its students, those schools that have no laboratories and no clinical teaching in the true sense of teaching. It would bring into prominence the value of biologic study as a preparation for medicine. It would put before the medical student real acquirements, instead of parrot-like memory, as the essential for a license to practise medicine, and it would give true pedagogic methods in medical schools an ascendancy over the traditional methods of the past century.

This much surely the medical examining board ought to do. It is a duty to the citizens of the State; it is justice to the better class of medical colleges; it is a privilege which no other body possesses.

WAR MADE UPON MEDICAL AND HYGIENIC BARBARISM IN OHIO.

STRANGE and wonderful as it may seem, the cause of medical civilization is being upheld by Ohio. The State cannot get a Medical Practice Act passed by the State Legislature out there, but by some hook or crook it seems that a law has been put on the statute-books prohibiting the adulteration of food, beverages, and medicine. We suppose the quack aristocracy that stuck their tongues into their cheeks and roared derision at the medical profession never suspected that this law could be applied to their infamous cure-alls, "patent medicines," "bitters," and whiskeys. But the Ohio Dairy and Food Commission, with headquarters at Cincinnati, discovered the applicability of the general terms of the law, and also—*mirabile dictu*—discovered some moral courage, and putting both to use they are marching to the courts of justice the grocers and druggists who are the distributing-agents for the concoctors of fraudulent drugs and articles of food. It is noteworthy that these local grocers and druggists, instead

of throwing the blame upon the manufacturers, seem inclined to espouse their cause and to fight the commissioners. So far has corruption come! The law and its execution is plainly directed against the manufacturer, and only secondarily against the distributor, and because in no other way can the State reach the rascals. One of the commissioners is reported as saying some time ago:

"We have brought about ninety cases, and not one of them has been decided against us. That is the record for the last six months, but it is likely to be eclipsed by the results of the next half-year. Our work is only fairly begun."

The arrests have been for selling as pure, or without proper notices, according to law, such articles as vinegar, oleomargarin, fruit-jellies, preserves, lemonade, milk, grape-juice, Vin Mariani, Paskola. The commissioners' expert in chemic analysis first buys these articles, analyzes them, then prosecutes the clerk or proprietor of the store who sold them to him.

Massachusetts, we believe, has a similar law, but we have not heard of any serious attempt to execute it in the case of such things as the vile compounds foisted upon the gullible public as the great promoters of health and curers of all diseases. It is a somewhat curious psychologic puzzle to understand how it is that in Massachusetts, where a learned (?) professor in Harvard College joins hands in upholding the quacks and helps them to succeed in killing a proposed medical-practice act, and in Ohio, where a similar delectable set rules the Legislature—in these two States, there should be such laws against the scoundrels, and that in Ohio they should, as CARLYLE would say, succeed in getting themselves executed. The rest of us are bound down in abject slavery. The law of libel, or the absurd fear of it, holds over the heads of publishers and editors a sword that, it is said, would chop heads clean off "with neatness and dispatch," should a word be whispered in objection to the ring-rule of the patent-medicine syndicates and the manufacturers of secret nostrums. If a suggestion of the law of libel were not sufficient to throw us into "conniption fits" of fright, the threat of a cessation of advertisements is quite enough to make us scuttle to our holes like frightened chipmunks. Thank heaven for one man and one journal that will speak out fearlessly and welcome the threatened lawsuits. We do not always agree with the brave editor of the Cincinnati *Lancet-Clinic*, but in this crusade we cry him Godspeed with all our heart and with all our lungs.

EDITORIAL COMMENTS.

Ophthalmologic Tricks.—Even the oculists are mortal and peccable! We do not know how many times it has come to us very directly that patients with cataract, well advanced, incipient, or even only imagined, have been "treated" for it systematically and locally, in expectation of its absorption, the treatment extending over months, or even years, with constant payment of fees. This is the homeopathic trick *par excellence*. We have never except once heard of an "allopath" doing it. It is psychologically interesting to see that the mind has sectarian "lines of cleavage" in its scoundrelisms as well as in its therapeutics. In ophthalmic tricks the "allopath" can certainly rival his erring homeopathic brother. His is the far more common attempt to cure a case of reflex conjunctivitis or blepharitis, due to eye-strain, by the local application of astringents, etc., or by aqua destillata (and the applications always must be made by the physician), continued until the patient's purse or patience are one or both exhausted. Another "money-maker" is humoring the popular mistake in nomenclature which supposes the "scales" along the lid-edges in certain forms of blepharitis to be "granular lids," and the long-continued treatment of trachoma is instituted when there is not the slightest sign of the disease present.

But the wildest and perhaps the most common, as it is the most profitable, stroke is that of treating *musca volitantes*. Many patients are frightened by the "dark spot before their eyes," get to watching it, and think it is the beginning of blindness or of some dire disease of the eyes. If they fall into the hands of a fellow whose motto is "*Medicine is Business*" he will humor their error, and, systematically or locally, pretend to treat this little symptom until some honest man will brush the morbid fear away with a laugh. We are glad to believe the ophthalmic tricksters are few and the honest men are many, but we are sorry to be compelled to confess that the few sneaks do exist. And they are much better known than they themselves suppose. Hospital positions, long tails to names, even professorships, do not hide the facts or lessen the disgrace. Patients will travel and will talk—sometimes maliciously, sometimes errorfully, but sometimes also truthfully.

Examination of the Eyes of Motormen, Engineers, etc., is a suggestion well worthy of commendation. Without such a safeguard it is more than possible that some of the accidents occurring may be due to a defect of vision on the part of the men in charge of the trolley-cars. A high degree of ametropia would certainly lessen the precision and quickness with which the cars should be stopped in order to avoid accidents. Leaving out of consideration the direct danger in any specific instance, it is beyond question that such an ocular defect has the effect of dulling the general sensibility of the mind and making the entire man as a nervous mechanism less prompt in perception and reaction. The speed with which these cars are run, and the need of lightning-like accuracy and certainty in controlling them, demand the most perfect nervous mechanism possible.

In the case of railway locomotive-engineers and brakemen there is prevalent to-day a widespread mistake or

superstition that is endangering the lives of many people. We allude not to the admitted need of testing the color-sense of such men, but to the non-admitted and despised need, on the part of higher railway officers, of ametropic tests for the men. Ametropia both directly and indirectly, especially of high degree and if coupled with presbyopia, greatly lessens the accuracy of perception, both ocular and mental, of engineers and of brakemen. Glasses would greatly increase this accuracy in many cases, but however atrocious the defect, the men do not dare to wear glasses while on duty, because of the knowledge that if they do so they will be discharged because of poor eyes. Officials stupidly prefer them to continue work with poor vision rather than with glasses that make the vision practically normal.

Midwifery among the Somalis.—The *Indian Medical Record* (Vol. vii, No 5, p. 145) cites as an instance of barbarous midwifery, without a parallel, the practice in vogue among the Somalis of Africa. When a Somali woman in labor experiences any difficulty, such as obstruction to the passage of the fetus, her relatives call in the assistance of their Wadad, or priest, who is a kind of Jack-of-all-trades, and exercises a universal sway over the tribe. To assist the delivery the priestly doctor thrusts into the vaginal canal a knife, which, being of local manufacture, is rough and black, and is never over-clean, and with a rapid sawing movement cuts anteriorly until the blade comes in contact with the arch of the pubes. This obstetric operation is expected to give instantaneous relief; and the hemorrhage necessarily entailed is considered to be a "good sign" according to the explanation vouchsafed by the "learned doctor" to the elderly relatives. If this fails to effect the delivery, as it always does, the poor patient is blamed for the result as being the possessor of an impure soul. She is now gotten ready for a second and the last operation of relief. The priest-surgeon then thrusts the knife again into the vagina and cuts backward until the posterior wall of the pelvic cavity resists the knife. This is really and truly the finishing stroke, as it finishes off both the mother, to whom death must be undeniably a relief from such brutal interference, and the child, mutilated, though yet unborn.

Unilateral Fibrinous Rhinitis.—While it has been shown that many, if not the majority, of cases of so-called fibrinous rhinitis are due to the presence and activity of diphtheria-bacilli, it is equally admitted that this affection may arise in the absence of such bacilli. Even fibrinous rhinitis due to the presence of diphtheria-bacilli is to be differentiated from true nasal diphtheria. The latter invariably arises by extension of the diphtheric process from contiguous parts, while the former may develop as a primary and independent condition, although it too may follow in the sequence of pharyngeal diphtheria. On the other hand, fibrinous rhinitis is not characterized by extension of the exudative process to the pharynx; and the constitutional phenomena are less pronounced in rhinitis than in diphtheria. In illustration of the fact that the mere presence of microorganisms is not sufficient to generate disease, it is interesting in this connection to refer to a case of fibrinous rhinitis in a nine-year old boy who had not had diphtheria, but whose

mother had suffered from an attack of the laryngeal variety, reported by ABEL (*Deutsche medicinische Wochenschrift*, 1894, No. 35, p. 693), and in which diphtheria-bacilli were found in both nares, although false membrane formed in but one.

Who are the Editors, the Publishers, etc.?—We wish to protest against the custom of some English medical journals (we suppose they are English) of leaving contributors and correspondents in entire ignorance not only as to who their editors are, but also as to who their publishers may be, and even as to where the journal itself is published. In our prized contemporary whose only fault is excessive urbanity, good nature, and remarkable scholarship in reference to what it calls "American spelling"—the *Medical Press and Circular*—there is not a line from beginning to end to tell us where it is published or by whom it is published and edited. This excessive modesty is complimentary to the hidden and nameless divinities that preside over the destinies of medicine and of the medical press. It forms a delightful contrast, perhaps, to some of our American examples of medical journalism in which the editor's name and that of his journal are the chief or only prized thing in the valueless journal; but, seriously, *omne ignotum pro magnifico* is about as ridiculous a blunder—at least for perplexed correspondents. It may be characteristic, and even scientific—perhaps our charming contemporary would prefer us to spell *characteristical* and *scientific*!—but it is not sympathetic or hygienical.

The Medical Department of Tulane University requires, as we are glad to learn, an attendance upon "three courses of lectures of not less than six months each in three separate years." The implication in a recent editorial comment that it is "a two-year college" was an error, based upon misinformation, which we are happy to correct.

SELECTION.

THE ENCOURAGEMENT OF PAUPERISM ILLUSTRATED BY THE TOWN OF WATERBURY, CONN.

From 1869 to 1893, inclusive, the disbursements for official alms in Waterbury, Conn., aggregated \$483,043. If the expenses of administration and the cost of new almshouses were included in these figures the rotund total for the quarter of a century would approximate \$600,000. The increment in alms during the twenty-five years has strikingly outstripped the increment in population and in the grand list. In 1869 the total relief amounted to \$6,799, while in 1893 it was \$38,452, an increase of 462 per cent. The population of the town is estimated to have been 12,834 in 1869 and 35,500 in 1893, the growth being 176 per cent. The grand list on which the tax of 1869 was levied was \$6,900,005, while twenty-five years later it was \$10,819,836, the expansion being a laggard 56 per cent. In other words, while the pauper expenditures in Waterbury during the twenty-five years bounded forward 462 per cent, the census increased but 176 per cent., and the grand list,

striking a leisurely pace, grew but 56 per cent. Your committee are not convinced that changes in the character of our population or in the condition of our industries justified a *per capita* pauper tax of \$1.08 in 1893, as against 52 cents in 1869.

A comparison with other communities serves still further to emphasize the lavish nature of Waterbury's distribution of public revenues among the poor. It is, in sooth, lamentably true that several large Connecticut towns jauntily jump over Waterbury's too high standard; but Prof. McCook has cleverly and conclusively demonstrated that Connecticut—a State famed for its inventive skill and its industrial genius—leads the world in its dispensation of public alms. But venturing beyond the borders of this Commonwealth, we find that while the annual cost of poor relief (exclusive of \$7,147.84 for hospitals) was 88 cents *per capita* in Waterbury last year, it was only 20 cents in the city of Providence in 1892. The figures for the manufacturing city of Pawtucket, R. I., are 37 cents as against our 86. The *per capita* tax for the support of outdoor and indoor paupers in Springfield was 51 cents in 1892. In most other New England cities (outside of Connecticut) whose population, like our own, is distinctly industrial, the burden of pauperism falls lightly on the shoulders of the taxpayers, if Waterbury's rate be taken as a basis of comparison.

Passing from municipalities to commonwealths, we find that the *per capita* cost of poor relief was 67.8 cents in Massachusetts in 1891; 55.3 cents in New York in 1890; 33.4 cents in Pennsylvania in 1890; 32.1 cents in Ohio in 1891; 35.9 cents in Michigan in 1889; 36.7 cents in Indiana in 1890-91; 35.9 cents in Illinois in 1889; 24.2 cents in Wisconsin in 1889; and 23.7 cents in Minnesota in 1891. Our own pauper tax towers loftily above these modest figures.

The names of eighteen families which were the recipients of aid in 1893 appeared on the town-records for the first time ten years ago. Nineteen families in last year's immortal 396 poured profuse and profitable petitions for assistance into the ears of the Selectmen nine years ago. Two families began their career of permanent pauperism eight years ago, and sixteen families seven years ago. Not less than 105 families, representing 367 persons, were aided continuously through the fiscal year of 1893, while sixty-two were relieved from six to eleven months.

It is a recognized principle that "people who have once drunk from the fountain of public relief acquire an insatiable appetite for its waters." Age cannot wither nor custom stale their infinite importunity. The step from temporary to permanent pauperism is short and alluring, and it is easier than the traditionally easy descent into Avernus.

It is unreasonable to suppose that under a plan of personal examination into the character and condition of the applicants, three proprietors of resorts of ill-fame could, between February, 1893, and January, 1894, have made victorious raids on the Selectmen's office. It is a matter of regret to your committee that Waterbury's system of public poor-relief is so elastic that under it the public revenues have several times been diverted to promote the practice, prosperity, and profits of prostitution.

At the first conference which we had with the Selectmen we were informed, with engaging frankness, that the recipients of orders could buy ice-cream with them if they chose. We heard of a woman in January who, having obtained a \$2 grocery-order, desired to use it exclusively for sugar. When the grocer conscientiously advised her to get only 50 cents worth of sugar and to expend the remaining \$1.50 on other articles she waxed indignant and threatened to transfer her future patronage to some less critical merchant. As several of the dealers on whom orders are drawn are licensed liquor-sellers it is not an improbable assumption that Waterbury occasionally furnishes some of its outside poor with a brand of groceries which can best be carried home in a jug, and which, if consumed in sufficient quantities, is less liable to cheer than to inebriate.

The local public expenses for the support of patients at hospitals for the sick are steadily increasing. Each patient sent to the Waterbury hospital by the Selectmen involves a weekly tax of \$6, while the New Haven hospital charges \$5. For that reason, in cases in which hospital-treatment will be required for a protracted period, the town finds it cheaper to send its patients to New Haven.

During the past ten years the disbursements for the hospitals-account have expanded 133 per cent., but we are advised that the Selectmen encounter considerable difficulty in keeping them down to the present figure. The requests for admission to the sick-hospitals at the expense of the taxpayers are constant and numerous, and eternal vigilance, supplemented by a discriminating judgment, is necessary to prevent the development of costly abuses. We think that, except in emergency cases, no patient should be admitted to a hospital for the sick without the written approval of the town-physician.

The fact that not less than forty-eight of the inmates are victims of inebriety challenges attention. In fact, the superintendent informs us that in reality intemperance is the cause of pauperism in a larger number of cases than the records indicate. Many of those who have tarried at the wine have tarried very long and very industriously. A majority of these forty-eight too bibulous persons are not old as age is reckoned by the calendar. Five of them are between twenty and thirty years of age; seven between thirty and forty; twelve between forty and fifty; fifteen between fifty and sixty; seven between sixty and seventy; while only two are on the sunset side of threescore years and ten. Their average age is forty-nine years. Many of these chronic drunkards will, in the natural course of events under existing conditions, become permanent and expensive public burdens. Looking at the problem exclusively from the standpoint of taxation and of public economy, we inquire whether it is not worth while for the town to test the value of medical treatment for inebriety on a few of these slaves of dipsomania. If a reasonable probability exists that some of them can be reclaimed to independence and to productive citizenship, the dictates of dollars and cents suggest the propriety of making the experiment.

The problem of women who, in the last stages of pregnancy, go to the almshouse to be delivered of their children, usually illegitimate, is not easily solved. Sev-

eral such cases occurred last year. The women usually leave the institution when they are able to work. The almshouse is thus converted into a lying-in hospital for the convenience of indigent women whose virtue is not stable and continuous, and licentiousness is indirectly promoted. The question is a delicate one, and we have no specific recommendation to offer, although we venture to inquire whether the detention of such mothers in the almshouse for at least six months, during which time they might develop a permanent affection for their children and also by hard work reimburse the town for the expense incurred by their admission, would not be advisable.

The superintendent when asked if opportunity was provided for the employment of the able-bodied inmates when the weather was unsuitable for outdoor labor, replied in the negative.

The number of capable workers at the institution is, as we understand, and as is the case in most almshouses, larger in winter than in summer; for not infrequently men who are not inclined to have much commerce with hard work find the almshouse an agreeable place for hibernation and for obtaining the maximum of winter comforts in exchange for a minimum expenditure of energy. In the spring they migrate.

We have considered at length the operations and the results of Waterbury's system of official relief. Under that system the support of the public poor is imperiously exacting from taxpaying pockets large levies of money which might otherwise be employed in productive industries. That system has created in the community a vast amount of hereditary and chronic pauperism. It has encouraged the spirit of mendicancy and dulled the sense of personal responsibility. It has taught scores of people who, under ordinary conditions, ought to be self-supporting, confidently to rely on official bounties and to give their independence and ambition in exchange for the gratuities that are distributed from the City Hall. It has, in many cases, filched from the industrious and independent for the benefit of the idle and thriftless, and it has not infrequently rendered the condition of the pauper easier than that of the self-supporting taxpayer. It has naturally engendered certain administrative defects which have fostered the general evil and conduced to unnecessarily large expenditures. Under that system and, indeed, under any system of public relief, that delicate personal ministrations on the part of the almoner and that feeling of gratitude on the part of the recipient, which are the most helpful features of true charity, are absent: for the dispensation of public relief is a contest in which the applicant battles to get a large grant while the official fights to make the dole small.

We are profoundly convinced that Waterbury should aim to secure the ultimate abolition of outdoor relief. Brooklyn has abolished it. Baltimore has abolished it. Philadelphia has abolished it except for medicine and medical attendance. Other progressive cities, appreciating the grave social diseases that are caused by the microbe of liberal official charity, are rigorously curtailing their outdoor alms.

The dictates of civilization demand that the impotent poor who are not able to earn their own subsistence shall not be permitted to starve. But, as Prof. Francis A. Walker has pointed out, "it is of the highest impor-

tance that pauperism shall not be made inviting; that, on the contrary, the laborer shall be stimulated to the utmost possible exertions, only accepting relief as an alternative to actual starvation." Churches, voluntary charitable organizations, relatives, and private benevolence are, in general terms, competent to relieve the distress of the provident and deserving poor of Waterbury, while, in our opinion, the worthless indigent ought not to be assisted outside of the almshouse. This goal, although it cannot be reached by a short cut, ought to be kept steadily in view. We are confident that many outside paupers, if they were required either to go to the almshouse or be deprived of further relief altogether, would decline to accept the hospitalities of the institution and would find unsuspected resources by which an independent living could be obtained. Indeed, we do not believe that, in the long run, a general reduction of outdoor aid would largely increase the population of the poorhouse. Dr. Gladden, an authority on scientific philanthropy, says: "The abolition of outdoor relief involves a moral change in the community, upon the whole subject of dependence, which finds expression not only in the homes of the poor but also in the almshouses. If you want to reduce the number of dependents in your institutions, cut off the distribution of outdoor relief."

CHARLES G. ROOT, }
THOMAS D. WELLS, } Committee.
E. G. KILDUFF, }

—*Selections from the Report of the Special Committee on Public Poor-Relief in Waterbury, Conn., 1894.*

SOCIETY PROCEEDINGS.

NEW YORK STATE MEDICAL ASSOCIATION.

Eleventh Annual Meeting, held in New York, October 9, 10, and 11, 1894.

FIRST DAY—OCTOBER 9TH.

DR. ZERA J. LUSK, of Wyoming County, reported a case of lateral lithotomy for the removal of a large wire nail, which was alleged to have been in the bladder for four years. The nail was exhibited.

Dr. Lusk also reported a case of traumatic epilepsy, which was of interest because by trephining over the speech-center and removing an epidural clot the man was restored to health.

DR. E. D. FERGUSON, of Rensselaer County, in discussing this case, cautioned against expecting to find the lesion exactly where the anatomic or physiologic center was located, and reported a case from his own practice in illustration.

DR. DARWIN COLVIN, of Wayne County, said that cases of gunshot wound causing epilepsy were quite rare, according to the *Medical and Surgical History of the War of the Rebellion*, and that the case in which he had trepanned a soldier for this condition was the only one there reported as having recovered.

DR. EDEN V. DELPHEY, of New York County, exhibited a new non-conducting speculum made of hard rubber, which he had found useful for giving a postpartum intra-uterine douch. It resembled a very large

one-bladed Sims speculum, the handle of which was in the form of a gutter, through which the fluid drained off into a pail suspended from the end of this handle. With it very hot water could be used without discomfort to the patient from the speculum becoming too hot.

Dr. Delphey also narrated some of the interesting points in a lawsuit in which he had been made one of the defendants. He had been asked by Dr. A. H. Goelet to give an anesthetic to a man of fifty-two years, who had a gangrenous finger that required amputation. The patient had refused consent to the operation unless an anesthetic were given. The urine had been examined and found to be normal. With the Esmarch inhaler not more than one dram of Squibb's chloroform was given, and then ether was substituted, being administered in a paper cone and towel in the usual way. Shortly after beginning the ether, the patient without any warning suddenly stopped breathing. Artificial respiration by the Sylvester method was at once begun, and kept up for half an hour, and only abandoned after the heart had ceased to beat. The autopsy was made by the deputy coroner, who reported finding pulmonary edema, pachymeningitis, old adhesions of the lungs on the left side, and incipient disease of the kidneys. The medical expert for the plaintiff alleged that no conscientious physician would administer chloroform to a patient having incipient disease of the kidney. It is important to note that the Judge, Judge C. H. Truax, in his charge, instructed the jury to take no notice of the fact that the family of the patient had objected to the giving of an anesthetic, for he held that they had no right to do so, especially as the patient was competent to decide that matter for himself. A verdict was rendered for the defence.

In the course of the discussion, DR. E. D. FERGUSON called attention to the fact that it had been held, at least in Pennsylvania, that the physicians who are present at an operation merely as witnesses could be made co-defendants in a suit of this kind, and DR. D. COLVIN asserted that the previous signing of a contract by the patient releasing the physician from damages in case of an untoward result would not save him if it could be shown that he had not taken all ordinary precautions or had not pursued the usual treatment.

DR. J. W. S. GOULEY, of New York County, presented a communication, in which he gave his reasons for offering the word "typhlenteritis" as a substitute for "appendicitis."

DR. JOSEPH D. BRYANT, of New York County, reported four "Interesting Cases of Appendicitis," all of them secondary, and each illustrating a certain type of the disease.

In discussing the paper, DR. F. W. GOODALL, of Vermont, said that from a recent short experience in palpating the appendix, as advocated by Dr. G. M. Edebohls, he had become convinced that it was a method of examination that was both easy and useful.

DR. J. G. TRUAX, of New York County, said that, in his opinion, if the first attack of appendicitis were properly treated, not one case in a thousand would have a second attack. By proper treatment he meant placing the patient in bed, applying an ice-bag over the ileocecal region until all induration had disappeared, keeping the patient all this time, and for two or three weeks

longer, on an exclusively milk diet, and then for five or six weeks more on farinaceous food.

DR. H. O. MARCY, of Boston, defined appendicitis as a proliferation of the bacillus coli communis locked up in a small process of the bowel. In a large experience, he said, he had never felt sorry for having operated for appendicitis, but he had frequently had occasion to regret the opposite course. He had been the first to operate in recurrent cases during the interval, and he still favored this practice.

DR. E. D. FERGUSON reiterated a statement made a year ago, to the effect that in his experience the vast majority of cases had only had a single attack.

DR. BRYANT replied that from 60 to 80 per cent. of those having appendicitis primarily would recover without operation. The mortality in the operative cases was about two per cent. In ordinary primary attacks, in the absence of symptoms distinctly demanding operation, he would, before operating, wait for about forty-eight hours, or until the fever indicated the possibility of suppuration.

DR. W. H. PARK, of New York County, read a paper entitled "Recent Studies on Diphtheria and Pseudo-diphtheria." He explained the methods now in vogue by the Board of Health for determining by bacteriologic examinations whether cases reported are true or false diphtheria. Cases were also cited to show that healthy persons could carry the bacilli and infect others with the disease without themselves succumbing to it. It had been found that if care were taken to keep the throats of persons exposed to pseudo-diphtheria in a healthy condition there was little risk of contracting this disease. Experiments carried on at the Willard Parker Hospital had shown that warm salt solution was one of the very best solutions for irrigating the nose and throat of diphtheric patients—even better than hydrogen dioxide solution. Calomel-sublimations had not been found antiseptic in the nasal passages. A short account was then given of the new method of treating diphtheria by the antitoxin, and it was stated that competent observers were well agreed as to the excellent therapeutic results obtained from it and as to its furnishing immunity from the disease to healthy persons for a period of a few weeks.

DR. JOHN CRONYN, of Erie County, followed with a short paper on diphtheria, in which he presented his reasons for believing the disease to be in the first instance a constitutional disease.

DR. HERMAN M. BIGGS, of New York County, said that he had recently talked with the able men who were studying the antitoxin treatment in Berlin, and they were of the unanimous opinion that the treatment had already passed beyond the experimental stage. In their last series of tracheotomy-cases treated in this way they had had over 75 per cent. recover. It had been found that the dose of antitoxin must be graduated according to the weight, age, and size of the patient.

DR. A. PALMER DUDLEY, of New York County, exhibited three patients on whom he had performed Cesarean section, and described the technique he had employed.

DR. JOSEPH TABER JOHNSON, of Washington, D. C., read a paper on "Hysterectomy for Uterine Fibroma by Baer's Method," and reported nine successful cases

treated by this method. They had all had a remarkably rapid and easy convalescence. Other similar methods required more time for their performance.

DR. W. R. PRYOR, of New York County, read a paper on "Hysterectomy in Pus-cases," in which he advocated the removal of the uterus as well as the pus-tubes, claiming that unless this were done in the more severe cases a large percentage would be only temporarily relieved of the symptoms for which the salpingo-oophorectomy had been done. The removal of the uterus added but little to the shock and danger of the operation.

DR. H. O. MARCY, of Boston, made some remarks on "The Anatomy and Surgical Treatment of Inguinal Hernia in the Male," and illustrated them profusely by means of the stereopticon. He emphasized especially the importance of restoring the obliquity of the inguinal canal if one would effect a permanent cure.

SECOND DAY—OCTOBER 10TH.

DR. DOUGLAS AYRES, of Montgomery County, read a paper on "Fractures of the Inferior Extremity of the Humerus, involving the Articulating Surface," and reported two cases occurring in children. He advised elevation of the limb, cold applications, careful immobilization of the limb in the bent position, and an early resort to passive motion.

DR. A. J. VAN VRAKEN, of Albany County, emphasized the importance of basing the diagnosis on an examination made under an anesthetic, and also the advisability of confining children to bed as the only way of properly controlling them.

DR. JOHN CRONYN said that injuries of this class were especially likely to lead to suits for malpractice. For this reason he had been in the habit in such cases of telling the family at the outset in the presence of witnesses that it was rare to get a perfect result, and that consequently if they knew of any surgeon whom they thought might be able to treat the case more skilfully than he he wished they would send for him at once.

DR. JOSEPH S. GIBB, of Philadelphia, read a paper on "The Stearate of Zinc Compounds in Atrophic Rhinitis," which will be published in a future number of THE MEDICAL NEWS.

DR. DWIGHT L. HUBBARD, of New York County, said that while he could from personal experience vouch for the value of stearate of zinc, he felt that the chief factor in the treatment described in the paper was the efficient cleansing of the parts.

DR. WILLIAM H. ROBB, of Montgomery County, reported a case of suppurative cellulitis following an injury of the hand, in which in spite of antiseptic dressings, and later on amputation of the arm, the cellulitis spread rapidly upward, and the patient finally died. He attributed the peculiar behavior of this case to the fact that the injured hand had been wrapped up in germ-laden woolen rags for nearly four hours before he had seen it, and that in this way the microbes of suppuration had had time to penetrate deeply into the lymphatics before the application of the first antiseptic dressing. The moral was obvious.

DR. HERMAN M. BIGGS, of New York County, opened the formal "Discussion on the Prevention of Tuberculosis." He said that for the past eight months the New York City Board of Health had treated tuberculosis as a

communicable disease, and had compelled notification when tuberculosis had developed in public institutions. The chief means of prevention were: (1) notification; (2) advice against marriage of tuberculous individuals; (3) destruction of tuberculous matter, and limiting its dissemination; (4) improvement of sanitation generally; (5) removal of delicate children from families in which tuberculosis had already developed; (6) governmental inspection of dairy cows, and of animals slaughtered for food, and the sterilization of milk from doubtful sources; (7) the maintenance of a proper sanitary condition in all public conveyances; (8) the establishment of special hospitals for the advanced cases of tuberculosis.

DR. LAWRENCE FLICK, of Philadelphia, continued the discussion, illustrating his remarks by lantern views. He exhibited statistical maps showing plainly that health-resorts had been an important factor in propagating tuberculosis. His photographs of small alleys and the interiors of tenements showed very well the overcrowding and the unsanitary nature of the ordinary home-life of these people. He dwelt with emphasis on the influence of hospitals for tuberculous patients on the mortality from tuberculosis. Thus, since such hospitals had been in vogue in England, there had been a noteworthy diminution in this mortality-rate—an argument at once powerful as regards the contagiousness of tuberculosis, and in favor of the more general erection of such special hospitals. In the city of Philadelphia, since 1884, there had been a reduction of 6 per cent. in the mortality, or a saving of nearly one thousand lives a year. There had been a reduction of nearly one-third in the mortality in Berlin since the discovery of the contagious nature of tuberculosis. About one hundred years ago in Naples tuberculosis had been extremely common and malignant, but owing to the enactment of very stringent measures looking to the compulsory isolation of tuberculous patients, the mortality had been wonderfully reduced, until at the present day it was only about one-tenth per thousand in the cities, and practically *nil* in the rural districts.

DR. J. H. HUDDLESTON, of New York County, spoke of the technique of examining the sputum for tubercle-bacilli, and dwelt on the importance of concentrating the sputum.

DR. JOSEPH D. BRYANT, of New York, recounted the preliminary steps that had been taken since 1887 by the Board of Health in connection with the prevention of tuberculosis, and how these efforts had finally culminated in the recent and now well-known action of the board in declaring tuberculosis a contagious disease, and requiring it to be reported as such by the authorities of all public institutions.

DR. E. G. JANEWAY, of New York County, sent a communication, in which he pointed out that examination of the sputum for tubercle-bacilli was not always a reliable guide in diagnosis. He also suggested having separate rooms and distinctive bed-clothing in hotels for the use of tuberculous patients only.

DR. J. G. TRUAX, of New York County, said that he did not consider it quite safe to employ tuberculin as a diagnostic test.

DR. BIGGS, in closing the discussion, said that Professor Koch had recently told him that tuberculin was

used as a routine measure in the Berlin hospitals in all doubtful cases, and that if properly used it was perfectly harmless. If used in *pure* tuberculosis it appeared to be curative, whereas, it was harmless if used in cases of mixed infection.

DR. J. BLAKE WHITE, of New York County, in a paper on "The Diagnosis and Treatment of Pleurisy," expressed the opinion that strapping the chest in this disease would be likely to result in permanent changes in the lungs and pleura. He had not found the salicylates especially useful except when there was a rheumatic element present. Aspiration should be performed as soon as serous effusion was detected. The open incision without resection of the rib was ample in empyema.

DR. FRANK VAN FLEET, of New York County, in a paper entitled the "Treatment of Retinitis Albuminurica in Pregnancy, from an Ethical Standpoint," presented quite fully both the legal and the moral aspect. Quoting from the Penal Code, he showed that the law did not justify the performance of abortion, except when it was necessary to save the mother's life; but he argued that as marked retinitis did not occur until nephritis was quite advanced, many would contend that the mother's life was really in jeopardy by reason of the renal complication.

THIRD DAY—OCTOBER 11TH.

DR. JOHN G. TRUAX, of New York County, in a paper entitled "Some Facts About the Treatment of Typhoid Fever," put forward as the best of many methods he had tried, the administration of mercury and salol, in conjunction with the persistent application of an ice-bag to the ileo-cecal region.

DR. FREDERICK HOLME WIGGIN, of New York County, read a paper on "Intestinal Anastomosis," in which he reported a clinical case and also results of twenty experiments on dogs. He objects to the Murphy button (1) because a foreign body is left in the intestine, which is sometimes retained, necessitating a secondary celiotomy for its removal; (2) the spring of the button may be made so strong as to cut through the coats of the bowel; (3) the weight of the button may anchor the intestine in a flexed position, and so cause obstruction, as in a case narrated; (4) there was some danger of the lumen of the button becoming plugged with hard fecal matter; and (5) the sharp edges of the lateral openings in the button are very liable to cut through the bowel. Dr. Wiggin prefers Maunsell's method, which he says is suitable for any portion of the canal, and can be safely and easily performed by an experienced surgeon.

DR. PARKER SYMS, of New York County, read a paper on "The Arthropathies of Locomotor Ataxia," and exhibited some patients. The pathologic changes, he said, involved both the bone and the soft parts. The joint-disease appears very suddenly, and the movements are abnormally great, and are associated with some of the early symptoms of locomotor ataxia.

DR. J. R. JANVRIN, of New York County, in a paper on "The Early Diagnosis of Tubal Pregnancy, and Primary Laparotomy in such Cases," enumerated, among the important signs, the patulous condition of the os; a tipping of the uterus laterally away from the side on which the fetal sac is located; an elastic swelling corre-

sponding to the location of the ovum; and an exquisite tenderness in this locality.

DR. AUSTIN FLINT, of New York County, was elected President of the Association for the ensuing year.

CORRESPONDENCE.

MID-SYSTOLIC MITRAL MURMURS.

To the Editor of THE MEDICAL NEWS,

SIR: I have just finished reading the interesting note by Dr. J. N. Hall, of Denver, upon an "Undescribed Heart-murmur." He is undoubtedly correct, that the murmur occurring in the middle of the cardiac systole is rare; but it is not undescribed. In 1892 I read a paper before the Association of American Physicians upon "Mid-systolic and Late-systolic Mitral Murmurs," and published it later in the *American Journal of the Medical Sciences* for September, 1892. In this I described three cases, in one of which the murmur occurred immediately before the occurrence of the second sound; so close to it, in fact, that it at first seemed almost coincident with it. It could properly be called a late-systolic murmur, analogous to the mitral diastolic murmur which occurs immediately before the first sound in many cases of mitral stenosis. In the other two cases the murmur was of longer duration, and was more properly mid-systolic in nature.

I hardly think Dr. Hall's explanation, that there was a separate action of the right and left ventricles, explains my cases. It seems much more probable that the condition is exactly analogous to that which obtains in the mitral diastolic murmurs. As Bristowe aptly puts it, there is often a "potential presystolic murmur," *i. e.*, the vibrations caused by stenosis occur during the whole of the diastole; but they do not always reach the ear, or they reach it at different times on different occasions, consequently a case may one day exhibit a murmur which occupies only the first part of the diastole, while upon the next day it may fill the whole period of it, or only become audible during the latter part. The actual condition of the valve is, of course, the same on all occasions. So in the mitral regurgitant murmur also. The regurgitation is taking place during the whole of systole, with the exception of the very short "persistence-time" at the very end of it, described by Martius. The vibrations, however, do not always reach the ear, as is well known. Consequently, on some days or under some conditions the mitral murmur is not audible, although the regurgitation is undoubtedly going on. Similarly there is no reason why we should not fail, for some unknown reason, to hear the first part of the regurgitation, although we do hear the later portions of it. It is true that this seldom occurs, while in the murmur of mitral stenosis it is common.

That this is the most plausible explanation of the mid-systolic mitral murmur seems indicated by Dr. Hall's own case. When his patient was first examined she presented a mitral murmur which had nothing unusual about it as to its time, while at the second examination the peculiar rhythm was noticeable. In two of my own cases this same variability was a very prom-

inent feature, and was, in fact, one of the chief reasons for the explanation I have proposed.

Yours truly,

J. P. CROZER GRIFFITH.

123 S. EIGHTEENTH STREET, PHILADELPHIA.

NEWS ITEMS.

Foot-ball Casualties.—"On the 22d ult., in a match at Watford between the West Herts and Royal Engineers teams, a player (a forward) fractured his knee, and another player (a center forward) also sustained an injury to his knee. On Saturday last, during a match on the recreation ground, Driffield, between the Driffield and Selby Mispah teams, the Driffield full-back fractured his leg. On the same day in a match at Kinver between the Kinver and Kingswinford Clubs a player received injuries from which he died on Monday last. While playing a match on Wednesday last at Brunham between the Reading and Brunham Clubs a player fractured his right leg."—*Lancet*, October 6, 1894, p. 831.

From a few New York and Philadelphia papers that have come to our notice we gather the following:

"On Saturday, October 20th, at Philadelphia, in a game between teams of the Drexel Institute and Hamilton School, O. F. Knight, a student of the Drexel Institute, a man twenty-five years old, of fine physique and prominent in athletic sports, collided with another player and fractured his skull so badly that he will probably die."

"Of the men who have been hurt, five are undoubtedly laid up for good. They are Connor, Richardson, and Dunlop, all of whom had their collar-bones broken; Gray, who broke his leg, and Acton, who dislocated his arm. Hallowell got into a hard scrimmage, and was taken from the field. It was found that he had sprung a cartilage over his rib."

"E. Bennett, of the Harvard School eleven, fractured his left leg while playing in Central Park, and W. McGahey, of the Brooklyn Polytechnic, broke his thigh in a game at Eastern Park."

"Lehigh's foot-ball eleven is in a deplorable state from having played Princeton, Yale, and Pennsylvania within twelve days. The work was too much for them, and the whole truth of the matter is, several of the players show signs of growing stale."

"Houston and Budd, the tackles, are laid up with injuries. Yates, who played such a good game at end in the second half of the Pennsylvania game, will be unable to play again this year on account of a broken collar-bone received in the game on Saturday; Saltzman, the quarter-back, is still laid up, and Keys at center is also in a bad condition. Fitzgerald at full-back has been unable to play since the Pennsylvania game."

"Mr. Deland said Saturday that Mackie, the veteran guard, would also be in harness later, but the big fellow himself says differently."

"He thinks he has played long enough with the team, and says that even if he wanted to play his father would not let him."

"For over a week, Brown, the stocky little half-back from Newton High, has been laying off on account of an injury to his knee. Yesterday he started in again with the 'varsity, only to be taken from the field before the

practice was half over, having again badly hurt his leg. Besides these two accidents, Weld strained his knee so badly that he too had to leave the game and be carried to the club-house."

"The eleven of Stevens Institute has disbanded for the season owing to injuries received by its best players."

The Tri-State Medical Society of Iowa, Illinois, and Missouri held its third annual meeting at Jacksonville, Ill., October 2d and 3d. Papers were read by Drs. J. H. Etheridge, Bayard Holmes, Boerne Bettman, Rôbert H. Babcock, F. Henrotin, and W. F. Hubbard, of Chicago; John Puntun, Kansas City; James A. Close and Emory Lanphear, of St. Louis; W. B. LaForce, of Ottumwa, Iowa; E. O. Sisson and F. B. Dorsey, of Keokuk, Iowa; Frank B. Norbury, Anne H. McFarland, Carl E. Black, and L. A. Malone, of Jacksonville, Ill.; Alfred Meyer, of Kankee, Ill.; W. M. Catto, of Decatur, Ill., and Charles W. Rook, of Quincy, Ill.

The following officers were elected:

President: Dr. James Moores Ball, of St. Louis.

Senior Vice-President: Dr. Bayard Holmes, of Chicago.

Junior Vice-President: Dr. L. A. Malone, of Jacksonville, Ill.

Treasurer: Dr. C. S. Chase, of Waterloo, Iowa.

Secretary: Dr. Frank P. Norbury, of Jacksonville, Ill. St. Louis was selected as the next place of meeting, which is to be held April 2 to 4, 1895.

Dr. John A. Wyeth, of New York, has consented to deliver the address on Surgery.

Dr. Fred. Byron Robinson, of Chicago, will deliver the address on Gynecology, and Dr. David Cerna, of Galveston, Texas, will speak on "Recent Advances in Therapeutics."

Monument to Charcot.—The pupils and former associates of Charcot in Paris and throughout France are engaged in raising a fund for the erection of a bronze statue of him in the Salpêtrière. This movement is now receiving cordial and material support in Germany, in England, and in Italy.

It has therefore seemed desirable to the New York Neurological Society that the profession in America join in this testimonial.

For this purpose the Society has appointed a committee consisting of Drs. Edward D. Fisher, E. C. Seguin, M. Allen Starr, Charles L. Dana, and C. A. Herter, to bring the matter to the attention of the profession and to receive contributions, which will be duly acknowledged and forwarded to the Central Committee in Paris.

New Medical, Pharmaceutical, and Dental Directory.—George Keil, 1715 Willington street, Philadelphia, has now in press the third edition of the *Medical and Dental Registry-Directory and Intelligencer* of Pennsylvania, New York, New Jersey, Maryland, Delaware, and the District of Columbia. It will present a complete list of the medical, pharmaceutical, and dental practitioners in the States named, with place and date of graduation; also professional educational institutions, hospitals, societies, etc. Medical men who have just located or removed are requested to forward their addresses, with desired information, to the publisher.

The Treatment of Appendicitis.—At the last meeting of the Board of Managers of the University Hospital the Director was authorized to set aside certain beds to be used by Professors William Pepper and J. William White for cases of appendicitis, those gentlemen being engaged in a special investigation of the symptoms, treatment, and pathology of that disease. Each case admitted to these beds will thus be studied from the outset with reference to both its medical and its surgical features. It is hoped that the results may aid in clearing up the prevalent differences of opinion as to this malady.

The Serum-Treatment of Diphtheria.—According to dispatches in the daily newspapers the Budget Committee of the French Parliament has resolved upon an appropriation of 100,000 francs with which to test the efficacy of the new diphtheria-serum.

A dispatch from Berlin says that Professor Virchow has expressed his opinion that the blood-serum prepared by Dr. Behring has the effect to protect the person taking it from the diphtheria for weeks, and possibly a few months, but says that it remains to be demonstrated whether the effect is permanent or really curative.

Medico-Legal Society.—A joint session of the Medico-Legal Society and the Section of Medico-Legal Surgery will be held at the Academy of Medicine, New York City, on November 15, 1894, at 8 o'clock P.M. precisely. The following papers will be read: "Hygienic Training of Men in Charge of Railway Trains," by Dr. Granville P. Conn; "Expert Examination of Plaintiff in Damage Cases, when Ordered by the Court," by Dr. George Chaffee; "The True Line of Duty of the Railway Surgeon," by Clark Bell, Esq.; "Medical Witnesses," by Dr. R. S. Harnden.

Prof. Carl Fraenkel, of Marburg, has been elected to the Chair of Hygiene in the University of Halle, rendered vacant by the transfer of Prof. Renk to Dresden. Prof. Fraenkel will not assume the duties of his new position until some time next year, his place in the interim being occupied by Prof. Behring, of the Institute for Infectious Diseases in Berlin.

Prof. Oscar Fraentzel, a distinguished pupil of Traube, died at Berlin on September 18th, after a protracted illness, at the age of fifty-six. He contributed generously to medical literature, more particularly in the department of internal medicine.

Dr. Hunter Robb, late assistant in gynecology at the Johns Hopkins Hospital, has been elected to the chair of gynecology in the medical department of the Western Reserve University.

The American Academy of Railway Surgeons will hold its first meeting in the parlors of the Grand Pacific Hotel, Chicago, Ill., on Friday and Saturday, November 9 and 10, 1894.

Dr. John M. Fisher has been elected one of the gynecologists to the Philadelphia Hospital, in succession to Dr. E. E. Montgomery, who resigned after a long term of service.